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Table of Contents

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ORIGINAL ARTICLES—	PAGE.	CURRENT COMMENT—	PAGE.
"An Address: Association of the Medical Profession with the State in a Policy of Preventive Medicine," by THE HONOURABLE S. STANLEY ARGYLE, M.L.A., M.B., Ch.B.	691	The Congo Red Reaction	704
"Dysentery in Mental Hospitals with Special Reference to the Types of Organism Involved," by E. T. HILLIARD, M.B., Ch.M., D.P.	695	Lead as a Therapeutic Agent	704
"Administration of Ether in Operations of the Lung," by MARK LIDWILL, M.D., Ch.M.	698	ABSTRACTS FROM CURRENT MEDICAL LITERATURE—	
"Tests with Tetrachlorethylene: A New Anthelmintic," by S. M. LAMBERT, M.D.	699	Gynaecology and Obstetrics	706
REVIEWS—		Neurology	707
A Great Australian Production	700	BRITISH MEDICAL ASSOCIATION NEWS—	
LEADING ARTICLES—		Annual Meeting	708
Medicine in the Federal Capital	703	MEDICAL APPOINTMENTS	714
		MEDICAL APPOINTMENTS VACANT, ETC.	714
		MEDICAL APPOINTMENTS: IMPORTANT NOTICE	714
		DIARY FOR THE MONTH	714
		EDITORIAL NOTICES	714

An Address.¹

ASSOCIATION OF THE MEDICAL PROFESSION WITH THE STATE IN A POLICY OF PREVENTIVE MEDICINE.

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ADVOCACY of a scheme of preventive medicine is not the thin end of the wedge of nationalization. The number of medical officers in the full employ of the State must and will be increased, but beyond the special needs of supervision and inspection no general absorption is even debatable. There is no other profession than that of medicine which sets itself to work so thoroughly and persistently to interfere with the source of the livelihood of its members. The old days when empirical medicine contented itself with living upon the necessities and bodily misfortunes of mankind are gone for ever. The well known dictum of Molière that physicians were people who "poured medicines of which they knew little, into bodies of which they knew less, to cure

diseases of which they knew nothing," has long since lost its sting. With the knowledge of the causation of disease came not only the intuition as to the best method of treatment and cure, but the desire to utilize that knowledge with the object of the prevention of its occurrence. By bitter experience accumulated through the ages nations learnt the broad principles upon which the science of hygiene is built up. To depart from those principles meant inevitable disaster and death. Every great religion contains the outlines of a code of hygienic principles. The knowledge of the contagiousness or infectivity of leprosy and the value of isolation, the hereditary possibilities of syphilis are clearly indicated by the compulsory cry of the old time leper of "Unclean! Unclean!" whenever he came into proximity with his fellow men and the damning sentence from Holy Writ: "I will visit the sins of the fathers upon the children unto the third and fourth generation of them that hate me."

It is only in comparatively modern times, however, that hygiene and preventive medicine under the title of public health became a recognized function of Government. The establishment of statistical records, incomplete and inaccurate as they were and still are, forced upon governments the necessity

¹ Delivered at the Annual Meeting of the Victorian Branch of the British Medical Association on December 2, 1925.

of taking some action to control the incidence and determine the causation of many diseases that were undoubtedly damaging the efficiency if not even threatening the very existence of the nation itself.

I was present on the occasion in 1892 in London, when the late King Edward in opening an international Congress of Hygiene and Demography said: "If these diseases are preventable, why are they not prevented?" Thoughtful men are still asking themselves the same question. The huge economic loss due to sickness and death under what should be preventable diseases is a slur on the State.

Henry Mayo, at Harvard Medical School, has written:

The pressure on our ruling bodies for grants of money for present needs is so great that there is little time or thought or one might say mental vision for those things which are not clearly understood or at least which cannot be readily justified to the unthinking voter. The ills of to-day cloud the horizon of tomorrow.

The future of any country depends upon the proper use of its most intelligent men. Only as we estimate a government as composed of willing but generally uninformed individuals do we recognize that their legislative duties must pertain of functions which are more or less generally understood. The universities train the men of vision who step in where government halts and open the way for the government to follow.

H. F. Helmholtz, of the American Medical Association, wrote in June, 1924:

Public health work has given the public an entirely new idea of the possibilities of child health and has brought about a demand for the care of the child such as we have never had. The parents bring the child to the physician not because he is sick, but because they want to know what more they can do to keep him well in mind and body.

The Commission on National Vitality appointed by President Roosevelt in 1909 estimated that there were about 3,000,000 persons seriously ill at all times in the United States of America. This represented roughly 3% of the population. It was estimated that 42% of this illness was preventable and that such prevention would extend the average life by over fifteen years. The average annual loss of time through illness is estimated to be from eight to nine days. The economic value to industry of the average life is assessed at £1,000 and the cost of medical attention, nursing, diet and so forth at fifteen shillings *per diem*, then the economic loss from preventable disease in the United States of America amounts to no less than a sum of £450,000,000. It has been estimated that this loss could be reduced and leave an economic balance above the cost of prevention of at least £200,000,000.

Applying these figures to Australia *pro rata* to the population, the economic saving to Australia would be several millions. Applying these figures to tuberculosis, we find in the United States of America that 1,250,000 wage earners are affected and the economic loss from the cause among the working population is £125,000,000. In Victoria we have twelve hundred deaths annually from this cause and roughly six thousand people affected. The economic loss is therefore so great as to warrant considerable expenditure to reduce it. Our

present expenditure of £20,000 *per annum* gets us nowhere.

The annual expenditure on curative activities in the State of Victoria is another sad reflection on the State, especially when this is compared with the total expended on preventive measures. One would again emphasize that the provision of hospital accommodation is essential, indeed until the 1922 Act was passed, the matter had been handled much too lightly or not handled at all, but the policy which has been adopted in this matter, is undoubtedly on the right lines and very definite progress is being made.

The maintenance expenditure for the year 1924-1925 was:

General Hospitals	£485,360	
Infectious Diseases	67,500	
Total		£552,860
Buildings:		
General Hospitals	£148,283	
Infectious Units	11,000	
Total		£159,283
Gross Total		£712,143

Whilst the limit that can be taken as spent on preventive proposals was £80,000.

It can be safely assumed that the totals shown as hospital expenditure will increase, the contributing factors being growth of population, increased hospital accommodation, improved facilities at the hospitals. Alternatively it is essential that the other figure being absurdly inadequate, must be many times greater.

With increasing knowledge as to causation authorities are changing the point of view from which they study this all important question. Yesterday textbooks and teaching schools all insisted that environment was the all important factor in the prevention and control of disease. Sanitation was paramount. Today we look to the control of infection as to major importance. Epidemiology takes pride of place and sanitation is relegated to a lesser position in the armamentarium of preventive medicine. Under the old régime the practitioner was relegated to the background, while the task of disease prevention was left to engineers, architects and other like officials.

The times have changed. Let us see that we change with them. Without the active cooperation of the whole medical profession, no scheme is worth a moment's consideration. It can be assumed that all members would welcome the time when communicable disease and conditions were at least reduced to a minimum. It can be demonstrated that active cooperation towards this ideal would not adversely affect the private affairs of practitioners; on the contrary it can be shown that valuable time would be gained, much worry obviated and indeed the financial aspect would, if anything, be improved.

In the report of the Consultative Council on Medical and Allied Services to the Ministry of Health in Great Britain in 1920, known as the Dawson Report, attention is drawn to the fact that

"the organization of medicine has become insufficient and fails to bring the advantages of medical knowledge within reach of the people."

The report also states that preventive and curative medicine cannot be separated on any sound principle and must be brought together in close coordination and should be brought within the sphere of the general practitioner whose duties should embrace the work of communal as well as individual medicine.

Dealing with the domiciliary aspect of this question the report expresses the opinion that "in any scheme of improved medical services the duty of the general practitioner to advise how to prevent disease and to improve the conditions of life among his patients should be an important element in his work" and also that "the general practitioner, if adequately trained, should play a valuable part in the work of the communal services, e.g. antenatal supervision, child welfare, physical culture and in combating tuberculosis and venereal disease."

Now the principal reason why no proper campaign of preventive medicine has ever been attempted, let alone carried out, is the general ignorance of the people in these matters.

The abandoned theories of twenty-five or even fifty years ago are still held by the masses of the people, health associations, health propaganda and health weeks notwithstanding. The people as a whole are frankly not interested. Sensational epidemics such as that of poliomyelitis in New Zealand arouse far more hysterical theorizing and official and legislative activity than the steady drain on the nation's efficiency from tuberculosis and syphilis. The people simply do not understand. The facts have never been properly brought home to them. To no one is such opportunity given for educational propaganda as to the general practitioner, coming as he does into the most intimate contact with the individual.

Health authorities with the most perfect organization that can be devised and with keen energetic and well informed officials to carry out their duties, are but "as sounding brass and a tinkling cymbal," if the will and the purse of the people are not behind them.

Sir George Newman in a memorandum to the Minister of Health in Great Britain last year stressed the fact "that our national health organization has not kept pace with our advance in the science and art of preventive medicine" and quoted Sir Henry Jones, of Glasgow, as saying that "the State is not safe unless public opinion is enlightened opinion; and the task of converting public opinion into educated opinion is so vast as to require the best powers of us all."

The notion that the situation can best be met by the nationalization of all medical work both curative and preventive is one that will not stand close investigation. While some of the communal services, such as hospital administration, laboratory work, both research and pathological, special insti-

tutions and sanatoria may best be carried out by permanent whole-time paid staffs, the intimate personal domiciliary attendance on the individual can only be satisfactorily undertaken by some such voluntary system as that now in vogue in all countries.

The Dawson Report to which I have previously referred, deals with this aspect of the question and states *inter alia* that "the clinical worker requires knowledge not only of the disease, but of the patient. . . . The voluntary character of the association between doctor and patient stimulates in the former the desire to excel both in skill and helpfulness. . . . In no calling is there such a gap between perfunctory routine and the best endeavour and the latter, in our opinion, would not be obtained under a whole-timed salaried state service which would tend by its machinery to discourage initiative, to diminish the sense of responsibility and to encourage mediocrity."

Nothing in my opinion that has been stated in this regard interferes with the value of any system of compulsory national insurance so long as the vital principle of "free choice of doctor" is maintained. That some system of insurance will have to be established for the proper treatment in institutions of persons who are not indigent, I have long been convinced, just as I am convinced that some more energetic campaign of disease prevention must be undertaken if we are to maintain our position as an efficient people among the nations of the world.

Which diseases and conditions then should we first concentrate our attention upon in order to initiate most effectively our campaign?

I would place them in the following order: (i.) Tuberculosis both in man and animals, (ii.) maternity morbidity and mortality, (iii.) infantile mortality, (iv.) venereal disease, (v.) mental deficiency, (vi.) diphtheria.

I have advisedly refrained from placing cancer upon this list for two reasons, firstly because the national efficiency is not seriously threatened by this disease, notwithstanding the rapidly increasing mortality rate and secondly because in the present state of our knowledge we cannot direct our energies in any particular direction either to arrest or to eradicate its ravages upon the population.

Tuberculosis.

Tuberculosis taking toll as it does from the people during the most promising and most useful age period, is easily the most formidable menace to our safety and our efficiency. Notwithstanding the fact that the death rate per million has fallen in the last fifteen years from 1006 to 712, still the improvement during the last decade amounts to only 84 per million. When one considers the wonderful environment that exists in Victoria, one is forced to the conclusion that the present death rate and incidence of this scourge is not a credit to us. The rôle and the responsibilities of the practitioner as a preventive agent against the spread of this disease are onerous. The causative organism, the methods

of conveyance and the importance of environment are well known and clearly defined. Are we then getting the results that we might expect as a consequence to our knowledge? Is the State backing up the efforts of the practitioner as it should? Are the people sufficiently informed to insist upon Governments doing all that can be done to meet the requirements of the situation? If the answer to these queries be in the negative, what are we going to do about it?

Regarding tuberculosis, the incidence is much greater in the poorer classes than amongst the well-to-do. This is an advantage for our purpose in that the greater proportion of infected persons are found amongst the hospital population. The greatest difficulty is to get really "early" infections and this is where the individual practitioner comes in, not only in the matter of diagnosis, but as educationalist in demonstrating to the patient (especially a breadwinner) that a short period of scientific treatment, if taken early, is a very small premium to pay for assured recovery. There is no doubt but that the public hospitals should admit these patients. No possible danger to others in the institution could arise if ordinary care be exercised and the saving in capital expenditure would be enormous. A further advantage would be that the patient would be near friends. The point is emphasized that the foregoing applies only to cases which can be strictly interpreted as "early." For the different degrees of advanced conditions sanatoria are to be provided, but cooperation as outlined should gradually lessen the need for the latter.

Maternity Morbidity and Mortality.

An obstetric research campaign has been entrusted to Dr. Marshall Allan. Dr. Marshall Allan opines that none of these activities are likely to be worth while unless or until every qualified medical man (including "outsiders") are forced to a realization of the fact that the job of the *accoucheur* is to assist, not force, Nature. In 1924 the number of mothers who died in childbirth to every thousand children born alive was the highest for twelve years except the year 1920 (? influenza). Obstetric units are being provided in country hospitals. Up to two years ago there was only one such in the country; now thirteen others have been created or are in process of establishment. The ideal would be for the profession to determine that there should be no confinements except in properly equipped institutions. Some difficulties may be met in *primiparae*, but the obstetrician can materially assist in educating the patients gradually to a realization of the undoubted advantages of such action.

Infantile Mortality.

On the average of the past five years the infantile death rate for the metropolis was 7.38 per 100 births, which was 29% below that for the decennium ended 1910 and 45% below the rate for the decennium ended 1900. While these figures indicate a decided improvement due no doubt to better conditions, better environment and more enlightenment in

antenatal hygiene, mothercraft and methods of infant feeding, still the rate is far too high when compared with other parts of the Commonwealth where the conditions are if anything worse than in Victoria.

In this matter the practitioner, both specialist and family doctor, is not quite as helpful as he might be. Is it not time that the profession spoke with one voice in the matter of artificial infant feeding or if that be not possible, at least that it came to some agreement as to essentials and laid down something authoritative for the bewildered parents to follow.

With regard to the statistics of infant mortality, more particularly comparative statistics frequently quoted to prove the efficacy of some infant welfare movement, it is as well to be careful before accepting these figures at their face value. Many factors should be considered before arriving at conclusions and all the factors which influence such statistics are not always obtainable. Sir George Newman recently drew attention to this in these words: "The lesson which other students of social evolution learned long ago, the lesson of the multiplicity of causation, is one that cannot be too often or too strongly impressed upon the student of communal hygiene."

The Right Honourable John Burns, M.P., addressing the National Conference on Infantile Mortality at Westminster in 1908, said:

Just as the causes of infant mortality are multiform, so the remedies must be multiplex; we have got to awaken intelligence in the mother and husband; we have got to demand greater cleanliness; we have got to provide in better homes, the means for cleanliness; we have got to provide for better and more food; we have got to ingeminate kindness and love; we have got to see that the child is better tended than the child now is; and the remedies for these conditions of things must be individual, must be medical, must be legislative and industrial. But all in order, decently and in order.

Dr Josephine Baker, New York City Health Department, says:

The solution of the problem of infant mortality is 20% pure milk and 80% training of the mothers.

Now that 80% is the business of the general practitioner. Dr. Frank Hone, Lecturer in Preventive Medicine at the Adelaide University, published a review of the present position of infantile mortality in THE MEDICAL JOURNAL OF AUSTRALIA of May 2 of this year in which he drew attention to the fact that although there had been an improvement in the infantile mortality figures, it was confined to the period of infancy later than the first month of life and that our campaign for the reduction of mortality in the first month must be directed towards the improvement of antenatal and natal conditions.

Venereal Disease.

One of the greatest and oldest social problems in history remains with us today in the prevention of venereal disease and its consequences.

Much of the infant mortality especially in the first month of life, many premature births, a great

deal of mental deficiency, lunacy and crime can be traced to this cause.

Whilst the curative side of this question has advanced considerably of late years, no adequate solution of its prevention has as yet been arrived at. Legislation has been passed with the object of obtaining notification and some degree of prophylaxis, but it cannot be claimed that much progress has been made in coping with the incidence of the disease. Here again the practitioner can assist materially by loyally assisting the authorities in their almost hopeless task.

Mental Deficiency.

Mental deficiency in all its stages, the lunatic to the slightly backward child, presents another important social problem in which the rôle of the practitioner is very important indeed. The undoubted hereditary nature of mental deficiency throws upon medical men the obligation to prevent as far as lies in their power the marriage of any recognized mentally deficient person. The practitioner should make himself familiar with the recognized stigmata of the condition in order that in suspected cases he may advise consultation with the expert who may confirm or reject the suspicion.

Diphtheria.

Efforts are being made to stamp out diphtheria altogether. The high degree of knowledge as to causation and transmission makes it possible to check effectively the spread when a case develops. The private practitioner's aid is, however, essential in that accurate diagnosis must be made at the earliest moment and the case reported without delay. To further the facilities for confirmatory bacteriological report in this and other cases, laboratories must be established in approved central places, easy of access. Already plans are in hand to have these at Ballarat, Horsham and Geelong. There is one at Bendigo and others will be provided.

Public hospitals provide the grand opportunity for observation of early conditions. For the year 1924-1925 49,964 individuals were admitted to general hospitals as in-patients and 120,429 received out-patient treatment. In addition persons were admitted to infectious units, showing a gross total as under of individuals who came under institutional observation as:

General In-Patients	49,964
General Out-Patients	120,429
Infectious ¹	3,950
		<hr/> 174,343

One obstacle in the way of closer relationship of the general practitioner with the health service is that the municipal medical officer of health is also a private practitioner and probably a professional rival. Appointment of full-time medical officers of health for centres of population would probably result in closer association of preventive and therapeutic services. This would probably mean joint appointments by two or more councils.

¹ Fairfield Infectious Diseases Hospital only. The figures for the whole State are not available.

It is obvious that preventive medicine should include medical examination of the well. While provision is made to some extent for medical surveillance up to school leaving age, practically no provision is made for such surveillance after the post-school age.

Diet is a most important factor in the production of ill health. Much could be done in the way of research and publicity in this direction. The scientific basis of dieting is not clear cut. Much work remains to be done as regards vitamins. At present advice in respect of dieting is left to clamant cranks.

The various medical services should be applicable to the condition of the person and not, as now, to the condition of his bank balance. How these services can be made available equitably to all concerned is the problem that awaits solution.

DYSENTERY IN MENTAL HOSPITALS WITH SPECIAL REFERENCE TO THE TYPES OF ORGANISM INVOLVED.

By E. T. HILLIARD, M.B., Ch.M., D.P. (Sydney),
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New South Wales.

DYSENTERY has always been endemic in mental hospitals, at times flaring up into epidemics and has been notoriously resistant to attempts at eradication. This is due partly to the faulty habits of many patients who have at one time or another suffered from the acute form of the disease, and partly to the tendency to quiescent periods in certain types of the disease, during which, however, mucus can still be demonstrated in the stools.

The agglutinating titre of the blood serum to organisms of the dysentery group of convalescents from clinical dysentery, of carriers and of normal persons were investigated. In the period under examination, 1919-1925, there were fifty patients with two deaths, a case mortality of 4%. In nine there was recurrence or the later passage of mucus.

All decades of life were impartially attacked, the disease only proving fatal in those, usually the aged, in whom the complicating factor of preexisting bodily disease rendered the prognosis more serious. A fact noted in a previous analysis of cases in 1906-1908, namely that a relatively high percentage of patients recently admitted are affected, still holds true.⁽¹⁾

No striking seasonal incidence was noted, though a large number of cases occur in the early autumn or early summer.

Onset and Symptoms.

The onset of the disease is usually with the complaint of malaise and colicky pains in the abdomen. There may be a rise of temperature, but this is not always observed. The tongue is dry and coated and the pulse is small and frequent. Examination at this stage may reveal diffuse tenderness in the hypogastrium with moderate distension. No changes are seen in the other bodily systems. In demented patients the first sign of the disease may be the passage of blood and mucus. In from twelve to

twenty-four hours the characteristic symptom of the disease appears, namely the passage of loose motions of offensive odour and containing a variable amount of blood and mucus. In favourable cases the blood and mucus disappear by the second and third day and the diarrhoea ceases two days later.

Clinical Types.

The clinical types may be classified into three groups: Mild, relapsing and toxic.

Mild Type.

In the mild type there is but little constitutional disturbance, fever is slight and response to treatment is brisk.

Relapsing Type.

The relapsing type is similar to the former, but is characterized by relapses after apparent recovery. Some of the patients are reported as "being always loose in the bowels" and mucus is noted occasionally in the stools.

Toxic Type.

The toxic type is characterized by high fever and great constitutional disturbance. In persons who have recovered, this recovery seems to be perfect, no subsequent looseness of the bowels or passage of mucus being detected.

Pathology.

The typical lesions are found in the large bowel from the caecum to the upper portion of the rectum. Early in the disease the mucous membrane is intensely congested and thickened. Areas of necrosis may occur with the formation of a false membrane. The vascular injection is occasionally noted on the serous coat of the bowel, especially near the rectum. In a few cases congestion of the mucous membrane of the lower part of the ileum is noted. Later innumerable small ulcers appear, giving the mucous membrane a worm-eaten appearance. The ulcers are shallow, irregular in outline and have clean-cut edges. This is in contradistinction to amœbic dysentery, where the ulcers are deep with ragged undermined edges. Between the ulcers in bacillary dysentery the mucosa is congested and œdematous. In amœbic dysentery the mucosa between the ulcers may be healthy and unaltered.⁽²⁾

In chronic cases in addition to the above there may be mucous retention cysts or actual polypoid growths.

Microscopically there is noted vascular dilatation and round celled infiltration of the tissues.

The mucus of bacillary dysentery is greyish and opaque from the great number of pus and phagocytic cells. A stained film shows numerous polymorpho-nuclear cells with clear cut ring nuclei, large numerous macrophage cells containing ingested red cells and Gram-negative bacilli. Numerous degenerating epithelial cells are also seen. Bacilli are extremely scarce and this may account for the difficulty of isolating them in pure culture.

Treatment.

The routine treatment adopted in this hospital is as follows. A preliminary dose of thirty mils (one ounce) of castor oil is given followed by free purgation by six doses of four grammes (one drachm) of sodium sulphate at intervals of one

hour. The diet is restricted to condensed milk diluted to one part in sixteen and barley water. Water is given freely. Thirty cubic centimetres of polyvalent antidysenteric serum are now given subcutaneously into the flank. An alternative method is to add the serum to five hundred cubic centimetres of sterile normal saline solution and to inject two hundred and fifty cubic centimetres under each breast. Absorption takes place rapidly and is complete in a few hours. Serum or serum together with saline solution is now injected subcutaneously once or twice daily till blood and mucus disappear from the stool. The dose of serum is now reduced to ten cubic centimetres daily. As the motions become formed, the diet is increased, milk being allowed first. The approach to full diet is made very slowly and any looseness of the bowels or reappearance of mucus is treated by serum and a return to the original low diet.

Previous to the introduction of antidysenteric serum the treatment consisted of free purgation, the subcutaneous injection of saline fluid, bowel lavage with weak permanganate of potash solution and opium or large doses of bismuth by mouth.

A comparison of the results of this method of treatment with those following antiserum therapy may not be out of place. Comparing a similar number of cases it was noted that the mortality rate has fallen from 22% to 4%.

Isolation of the Dysentery Bacillus.

A small plug of mucus was taken, washed in sterile normal saline solution and plated on to McConkey medium. In the absence of mucus the bowel was washed out with saline solution and the centrifuged washings were used. Care was taken always to obtain specimens within thirty minutes, so that the usual methods of treating the stool to preserve the organism were not necessary.

In twenty-four to forty-eight hours a colony not taking on a red colour in the lactose medium is picked off into lactose litmus peptone water and if acid or gas develops after twenty-four hours' incubation, that colony is discarded. If the peptone water remains blue, a little of it is transferred into tubes of glucose, maltose, mannite litmus peptone water. Colonies producing acid in glucose only are of the Shiga type; colonies producing acid in glucose and mannite are of the Flexner Y type; colonies producing acid in all three tubes are either of the Flexner type or the typhoid bacillus and a hanging drop preparation differentiates between the two, the dysentery organism being non-motile. In none of the tubes should gas production occur. Acid and gas production in all three would indicate the presence of paratyphoid bacilli or the *Bacillus enteritidis* of Gärtner. In 70% of the acute cases examined, the organism was isolated from the stool and proved to be: Shiga, 10%; Flexner, 30%; Flexner Y, 30%. These findings were confirmed by the appearance of the corresponding agglutinating reaction in the serum some time later. In one fatal case the Shiga bacillus was recovered from the stool and *post mortem* from the depth of an ulcer in the descending colon.

Agglutination Reactions.

Agglutination tests were carried out as follows. The serum was diluted in geometrical series with normal saline solution and then equal parts of dilute serum and a formalinized emulsion of bacilli were placed in a series of small tubes. The bacilli used were *Bacillus dysentericæ* (Flexner), *Bacillus dysentericæ* (Flexner Y strain), *Bacillus dysentericæ* (Shiga), Morgan's No. 1, Gärtner's bacillus, *Bacillus typhosus* and *Bacillus paratyphosus A* and *B*. The mixtures were placed in a water bath at 58° C. for four hours, followed by fifteen minutes standing at room temperature. No evidence of infection by Morgan's No. 1, Gärtner's, typhoid or paratyphoid group was found. An agglutination in one in two hundred dilution was accepted as evidence of Flexner infection and one in one in fifty as indicating a Shiga infection.

The serum of normal persons used as controls was found to agglutinate the Flexner group in dilutions of one in fifty to one in one hundred and fifty, while the Shiga group was never agglutinated by a stronger dilution than one in ten.

It is stated that: "Typhoid vaccination increases the agglutinating power of the serum against dysentery organisms."⁽³⁾ During the course of a typhoid-paratyphoid inoculation this was especially tested and it was noted that the serum of normal individuals showed a slight rise in agglutinating power towards the Flexner group, but after the lapse of one month this rise had disappeared.

The sera of thirty convalescents were examined with the following results:

Flexner	10 patients or 33.3%
Flexner Y	14 patients or 46.6%
Shiga	6 patients or 20.0%

In the recent cases the earliest agglutination reaction appeared on the sixteenth day of the disease or ten days after the clinical symptoms had subsided. Early in convalescence the reaction was not evident, but by the end of two months it was well defined and persisted (see Graph I.).

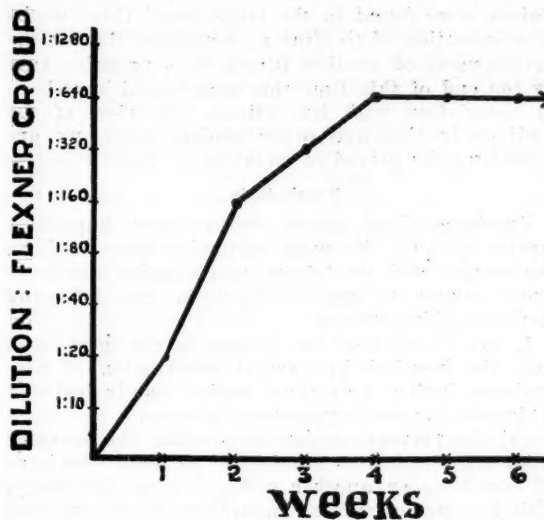
A high degree of correlation existed between the serum reactions and bowel culture findings and the clinical symptoms of the disease.

Dysentery of the Flexner Y type produces but little constitutional disturbance, is almost afebrile and is characterized by a tendency to recurrence and relapse after apparent recovery. Nine of the patients suffering from this type had recurrences following on two or more previous attacks.

Dysentery of the Flexner type is characterized by more constitutional disturbance, with moderate fever and but a slight tendency to recurrence.

Shiga infection leads to much constitutional disturbance with high fever, but there is no tendency to recurrence or relapse.

Infections with the Flexner bacillus and especially with the Y strain in virtue of their tendency to subsequent recurrence, may be regarded as potent aetiological factors in the endemic nature of the disease. This was further supported by an investigation into the suspected "carriers," that is persons who occasionally passed mucus in the stools or who suffered from occasional looseness of the bowels at varying periods after the original attack.



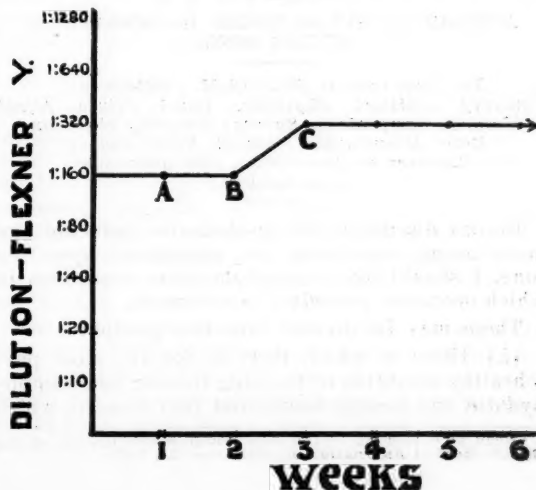
GRAPH I.

In four of these the blood serum yielded an agglutination reaction with the Y strain and in one case a Flexner Y organism was isolated. These four patients were inoculated with a Flexner Y vaccine in doses of five hundred, one thousand and one thousand millions at weekly intervals with satisfactory results, the looseness of the bowels clearing up, mucus disappearing from the stools and the serum titre towards this organism rising (see Graph II.: At A, B and C vaccine given).

From the fact that in certain cases the Flexner infection causes but little constitutional disturbance, it is quite possible that mild and short attacks may pass unrecognized, especially in demented patients.

An additional factor as regards the endemic nature of the disease is furnished by *post mortem* evidence. The following is an illustrative case.

An old man developed dysentery and recovered, as far as could be observed from the motions and shortly afterwards died of hypostatic pneumonia.



GRAPH II.

At the *post mortem* examination typical dysenteric lesions were found in the large bowel three weeks after cessation of all clinical symptoms. But for the development of another illness it is probable that by the end of this time this man would have been in association with his fellows. In view of the findings in this and other similar cases, we are extending the period of isolation of those affected.

Prophylaxis.

Prophylaxis, of course, is the most important matter of all. We must recognize that we have the carrier with us. Some we recognize and treat anew; others we undoubtedly miss. The following steps are of importance:

1. (a) To see that the disease is not introduced into the hospital by careful observation of new patients during their three weeks' rest in bed and to inquire concerning previous attacks.

(b) To prevent as far as possible the transfer from one hospital to another of patients who have at one time or another suffered from dysentery. This becomes of special importance in the opening of a new hospital.

2. To check the spread of the disease by prompt isolation of all patients suffering from suspicious forms of diarrhoea and to render the period of isolation as long as possible. We have a special ward where such patients are treated and are kept as long as their mental condition will allow. The treatment of carriers also comes under this heading.

3. To protect healthy persons by raising their resistance. We are endeavouring to do this by preventive inoculation with a stock Flexner vaccine made up by the Commonwealth Serum Laboratories from Australian strains. It is too early for us to say what real protection this affords.

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ADMINISTRATION OF ETHER IN OPERATIONS OF THE LUNG.¹

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BEFORE discussing the methods for inducing and maintaining anæsthesia for operations upon the lung, I should like to mention some conditions in which operative procedure is necessary.

These may be divided into two groups:

(i.) Those in which there is for the most part a healthy condition of the lung tissues, for example, hydatid and foreign bodies and (ii.) those in which

there is more or less generally diseased condition of the lung tissues, for example, bronchiectasis, abscess and empyema.

One would naturally suppose that there would be considerable danger of setting up irritation and subsequent inflammation in the second group, but personal experience has proved to my own satisfaction that this is not so, provided that reasonable care and commonsense are exercised.

The anæsthetics that you have at your disposal are: (i.) chloroform (ii.) nitrous oxide (iii.) ether (iv.) acetylene and (v.) ethylene.

With regard to the last two, namely acetylene and ethylene, I have had no experience and so am unable to give you any information.

Many years ago it was my custom to use chloroform in these cases and I also taught that this was the proper thing to do. Now I have entirely discarded this drug. In 1914 I bought two pounds of chloroform and this still remains unopened in my surgery.

With the improvement in anæsthesia there has been an enormous improvement in the surgery of the lungs. I have now no feeling of apprehension when called upon to administer an anæsthetic for an operation on the lungs provided that the surgeon is an experienced man.

Now, with regard to nitrous oxide I am unable to see that this drug has any advantages over ether and, furthermore, there are some disadvantages.

(i.) If nitrous oxide and oxygen only are administered, there is a deficiency of oxygen if the required depth of anæsthesia is to be obtained, not a very good thing in a case where the lungs are diseased.

(ii.) If the requisite amount of oxygen is to be administered to the patient, ether must be added to the anæsthetic to obtain the required depth of anæsthesia.

(iii.) It requires a particularly skilled man to pass a tube through the vocal chords of a patient under nitrous oxide narcosis, as there is a very short period of time at the disposal of the anæsthetist before recovery from anæsthesia.

(iv.) The profound narcosis required to get sufficient relaxation to pass the intratracheal tube is exceedingly difficult to obtain with nitrous oxide and oxygen in some patients.

(v.) The amount of nitrous oxide and oxygen required to maintain anæsthesia where there is no rebreathing, such as is seen when the intratracheal method is used, is enormous. I have tried this method and found it wanting.

And lastly, the anæsthesia is not sufficiently flexible and the strain on the anæsthetist is enormous and likely to lead to mistakes being made.

This leaves ether. There appears to be an idea prevalent amongst medical men that ether is unsafe to give to patients who are suffering from lung disease. I had this idea many years ago myself, but experience has taught me that this idea is erroneous. I have never seen any lung trouble made worse by the administration of ether.

Some persons may differ from me about this matter and point out that there is such a thing as

¹Read at a meeting of the New South Wales Branch of the British Medical Association on September 24, 1925.

ether pneumonia. If ether is capable of causing pneumonia, it should not be administered to patients with lung trouble. Here I desire to make a statement which is for the most part borne out by pathological examination and which is opposed to tradition, that a great number of so-called pneumonias after operations are not pneumonia at all, but are either infarcts due to emboli or thromboses or collapse of the lung due to paralysis of the diaphragm with subsequent congestion. When pneumonia does occur, it is due to: (i.) the ordinary incidents of life (ii.) inhalation of foreign matter (iii.) chill from insufficient clothing of the patient, particularly on the underside next to the table where there is often no more than a thin blanket and a sheet or a canvas stretcher between the patient and a cold metal operating table. (iv.) to the exposure of a large quantity of intestines to the air in a cold operating room.

Chill, as you are aware, lowers the resistance and just as Pasteur was able to produce anthrax in fowls whose temperature had been lowered for some time, so may we render a patient liable to pneumonia by continued loss of heat.

With the evidence before me I can see no contra-indication for giving ether, nor have I seen any harm from the administration of ether to patients for operations upon the lungs and in my opinion ether is the safest and best anaesthetic to use. The method I use is as follows:

The patient is anaesthetized as with ether given by the open method, ethyl chloride being sprayed on the mask until he is unable to answer questions put to him. Thereupon the anaesthetic is quickly changed to ether and a thin stream of this drug is poured more or less continuously on the mask, the object being to get the patient under the influence of ether before the effects of the ethyl chloride have worn off. If this is successfully accomplished, there will be no coughing, but if coughing arises and becomes troublesome, a few minims of chloroform dropped upon the mask will immediately dissipate the cough, when the administration of the ether may be resumed. Continue the administration of ether until the jaws are completely relaxed and pass a Belfast linen catheter (Number 13 for females and Number 14 for males) into the trachea and connect the catheter with the machine. You proceed then as in intratracheal anaesthesia. There may be a little coughing immediately the ether vapour is turned on, but this very quickly passes off as anaesthesia deepens.

After the first minute or so the anaesthesia may be lightened until the patient's pupils are quite small, say, about three millimetres (one-eighth of an inch) in diameter and the patient is kept at this light stage of anaesthesia throughout the operation.

The patient may now be placed in any position that the surgeon deems necessary and the operation commenced. There are no difficulties until the surgeon reaches the pleura and from here on there must be complete cooperation between the anaesthetist and the surgeon.

The anaesthetist has complete control of the inflation of the lungs. Great care should be taken

that the vapour is not pumped into the lungs at too great a pressure. Generally speaking, twenty-five millimetres of mercury pressure equal to about three-quarters of a pound to the square inch is sufficient, but if it is found necessary as much as forty millimetres of mercury pressure may be used. If the surgeon desires to stitch the parietal and visceral layers of the pleura together, all that is necessary is to place the hand over the mouth and to hold the nose and the lungs will very soon inflate, the two surfaces of the pleura coming together. As soon as the stitching has been done, the hands may be removed from the mouth and nose and the lungs allowed to deflate.

The lungs should always be completely inflated when a hydatid cyst is about to be opened. This will prevent any fluid from running back into the bronchus and drowning the patient. Some of my *confrères* deny that this is so, so with your permission I will demonstrate that if a tube is immersed in water and the air forced through it at a pressure greater than of the water in which it is immersed, no water will enter the tube, as the air pressure is greater than the surrounding matter.

Some years ago I drew attention to the fact that when searching for a bronchiectatic cavity with an exploring needle, the lung should be completely inflated. When the cavity is reached by the end of the needle, the surgeon will at once be aware of this on account of the objectionable smell issuing from the hollow of the needle.

Objection may be taken to the pressure applied to the lung tissues by this method of anaesthesia, but when it is realized that a pressure of twenty-five millimetres of mercury is equal to the effort of blowing air through a tube immersed in fifteen centimetres (six inches) of water, it will be seen that this pressure is really quite small and in no way reaches the pressure in the lung during coughing and is equal to the pressure in the lungs that is used when we blow out a candle.

TESTS WITH TETRACHLORETHYLENE: A NEW ANTHELMINTIC.

By S. M. LAMBERT, M.D.,
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In May, 1925, I received a letter from Maurice C. Hall, who introduced the use of carbon tetrachloride as an anthelmintic in 1921, telling of tests made on dogs with a new anthelmintic, ethylene tetrachloride, and asking me to try it on human patients. In September a copy of the original article was received, "Tetrachlorethylene: A New Anthelmintic," by Hall and Shillinger (*The American Journal of Tropical Medicine*, Volume V., No. 3, May, 1925).

The conclusions drawn by the authors are that this drug, C_2Cl_4 , is apparently just as effective as carbon tetrachloride, CCl_4 , that it is equally safe, that it has the same contraindications, that the cost would be no more with a large demand, that simultaneous administration with saturated magnesium

sulphate solution might reduce its efficacy, but that this method of administration was to be recommended as diminishing transient bad effects and affording protection to patients; because of its pleasanter taste and odour and the possibility of its proving more effective than carbon tetrachloride it ought to have cautious tests in human medicine.

Through the courtesy of Dr. T. Guthrie, Chief Chemist of the Colonial Sugar Refining Company, of Sydney, I was able to obtain some commercial ethylene tetrachloride and to have it purified by Professor George Harker, of the Sydney University. To these two gentlemen I am greatly indebted for their interest and assistance. Dr. Harker wrote that the final distillation under vacuum of the tetrachlorethylene was quite satisfactory, that the density agreed with Regnault's figure (1.619 at 20°) and the corrected boiling point agreed with Thorpe's figure of 120.74°. The product distilled within 0.15°.

These points are made carefully as Dr. Hall says that tetrachlorethylene has a pleasanter odour than carbon tetrachloride. My product was perfectly pure, but an inhalation would startle one with its pungent, acrid odour and was far from pleasant. The odour makes little difference when taken with water or magnesium sulphate solution as it sinks to the bottom.

In Vila, New Hebrides, I was able to test this new drug on three small groups, to one of which we gave two cubic centimetres, to another three cubic centimetres and to a third four cubic centimetres. All doses were given in saturated magnesium sulphate solution, sixty cubic centimetres of the solution with each dose. Stools were collected and screened and the worms carefully counted at the end of twenty-four hours and at the end of forty-eight hours. One week later three cubic centimetres of oil of chenopodium were given to each person to recover the remaining worms and the stools were again collected for twenty-four and forty-eight hours, washed and the worms counted.

The following tables show the results obtained. All worms recovered were necators.

These tables show that the efficacy of the new anthelmintic increases with the dose, from two to four cubic centimetres. Two cubic centimetres do not seem to be very effective. The second table with the three cubic centimetre dose makes a better

TABLE I.
TETRACHLORETHYLENE IN DOSES OF TWO
CUBIC CENTIMETRES.

Patient.	Number of Worms Removed.		Proportion of Worms Removed at Trial Treatment.
	Trial Treatment.	Test with 3 c.cm. Oil of Chenopodium.	
1	5	73	6%
2	0	153	0%
3	142	42	77%
4	13	18	42%
All patients..	160	286	36%

TABLE II.
TETRACHLORETHYLENE IN DOSES OF THREE
CUBIC CENTIMETRES.

Patients.	Number of Worms Removed.		Proportion of Worms Removed at Trial Treatment.
	Trial Treatment.	Test with 3 c.cm. Oil of Chenopodium.	
5	80	1	98%
6	17	28	38%
7	14	3	82%
8	6	1	86%
All patients..	117	33	77%

TABLE III.
TETRACHLORETHYLENE IN DOSES OF FOUR
CUBIC CENTIMETRES.

Patients.	Number of Worms Removed.		Proportion of Worms Removed at Trial Treatment.
	Trial Treatment.	Test with 3 c.cm. Oil of Chenopodium.	
9	30	1	97%
10	5	0	100%
11	120	2	98%
12	11	23	33%
13	288	3	99%
All patients..	454	29	94%

showing for the drug. Table III. shows splendid anthelmintic efficiency with one percentage of 97, two of 99 and one of 100 of total worms removed in five cases. One would say that these tests, though few in number, demonstrate that tetrachlorethylene in four cubic centimetre doses is equal to similar doses of carbon tetrachloride.

I could distinguish no difference in the symptoms in these few cases from the mild ones accompanying the use of carbon tetrachloride. The drug shows the same selective action on the female necator as does carbon tetrachloride.

On the whole there is no apparent reason, as evidenced by these few tests, for changing from the use of carbon tetrachloride to tetrachlorethylene. There is no greater drug efficiency, not fewer symptoms, no advantage in taste or odour.

Reviews.

A GREAT AUSTRALIAN PRODUCTION.

It is with feelings of pleasure unfeigned that we welcome the first volume of "The Illustrated Australian Encyclopedia," for whose publication we have long waited.¹ This volume goes from A to Lys inclusive. The format of the book, the binding, the letterpress and the illustrations are so like

¹ "The Illustrated Australian Encyclopedia." Edited by Arthur Wilberforce Jose and Herbert James Carter. Volume 1.: A to Lys; 1925. Sydney: Angus & Robertson Limited. Imperial 8vo., pp. 768.

those of the newly published "Chambers's Encyclopædia" that it may be regarded as an Australian supplement to that work. The Australian Encyclopædia does not suffer in comparison with that of Chambers's; we would go further and say the more we compare the Australian Encyclopædia with other works of a similar nature, the more we esteem the Australian production. The idea of publishing an encyclopædia dates as far back as the year 1912 when it was proposed to bring out a dictionary of Australian biography and history. In the year 1917, however, by a happy inspiration it was decided to extend the scope of the work and include articles on scientific subjects also. The contributors who number eighty-six, are all of them high authorities and trustworthy guides. They represent the whole of the Australian Commonwealth and New Zealand and are specialists with mature experience in the subjects on which they write. The Australian Encyclopædia, as the name implies, deals exclusively with subjects Australian and is a minefield in which all may delve with confidence, certain of obtaining that for which they search. Here the scientist, the man of letters, the historian, the student of matters financial, the politician, the saint, the savage, the general reader and others—even the schoolboy with his thirst for stories of adventure and bushranging—may seek and find that for which his soul longs. The book, unlike many of the larger encyclopædias, is up-to-date. The "Chronological Table," a very storehouse of information, is a thumb-nail history of Australia from the earliest times; it begins at the year 1606 when Quiros discovered the New Hebrides in March and Torres sailed through the strait that bears his name in September of the same year and continues down to 1924, when the Adelaide-Sydney aerial mail service came into operation. Fortunate it was that the idea of publishing this encyclopædia was conceived at a time when the beginnings of things could be thoroughly investigated and verified; at a later period the difficulties of obtaining such reliable historic facts and information would have been great if not insurmountable. In the review of an encyclopædia it is, of course, impossible and undesirable to examine *seriatim* the whole catalogue of subjects discussed, but we are tempted to refer very briefly to just a few of them taken at random, which are an earnest of the rest of the work.

The article on the aboriginal languages is from the pen of Sydney H. Ray, M.A., F.R.A.I., an authority of world-wide reputation and a member of the Cambridge Anthropological Expedition of 1898. This authority gives a review of the work done by his predecessors; he then discusses the unity of the southern languages, the classification of the languages, the phonology, the grammar of the southern languages and of the northern languages and the linguistic position of the Australian languages. There is quite an extensive bibliography at the end of the essay. The aborigines themselves and their destiny are treated in a style at once exhaustive, interesting, entertaining and authoritative by Sir W. Baldwin Spencer and Dr. Ramsay Smith. We are told that "with the exception of one or two isolated groups in other parts of the world, the Australian aborigines represent the most archaic people extant and in many respects reveal the conditions under which the early ancestors of the human race existed." The aborigines are an enigma puzzling alike to the physiologist and psychologist. "To one who knows how the blackfellow even in a single lifetime reacts to new influences—moral, intellectual and mechanical—the facts seem to upset all theories of cranial capacities, cerebral functioning and mental operations." To all who are interested in the natives of Australia this article will provide a very profitable hour.

Antarctica.—The lure of any enterprise in which there is a hazard, is to many very strong and the greater the hazard, the greater the attraction. This call is no respecter of persons and knows not the confines of time or space, age or sex. The scaling of Mount Everest, missionary enterprise in remote unexplored regions, the conquest of the air, big game hunting, all act as lodestones whose attraction is irresistible. It was this lure too that sent three hundred thousand Australians—men and women—to the late world war. The arctic and antarctic regions—the North and South poles—whose vast silent spaces have yet to give up their secrets, have been and will be sources of attraction

to hardy, adventurous, inquiring spirits. Captain Cook, on January 17, 1773, was the first to cross the antarctic circle and since then expedition after expedition has been fitted out and sent to that region and much good work has been done. In this article on Antarctica by Professor Griffith Taylor, Senior Geologist with Scott's Antarctic Expedition, 1910-1912, and leader of the western parties, we are told that Captain Cook "crossed the antarctic circle north of Enderby Land. Twelve months later he reached 71° 10' S. in a region where (as he himself foresaw) no explorer has yet gone further. With his small sailing vessels Cook could not penetrate far into the ice pack, but he conjectured that a large continent lay within it." This article dealing as it does "mainly with the Australian share in antarctic exploration," is a story graphically told of adventure, endurance, enterprise, resource and achievement.

Australians have every reason for self-congratulation on the part they have played in the domain of aviation. In the article on aviation we are told that in the year 1851 Dr. William Bland designed a dirigible balloon which he named "the atmotic ship." The shape of Bland's airship was so very like that of the modern "Zeppelin" that the question has been raised: "Did the Germans have any knowledge of this invention?" The "atmotic ship" consisted of a sausage balloon or float and an under-carriage. The under-carriage containing accommodation for the crew, passengers and engines, hung from and was firmly attached to the float. Dr. Bland estimated that the balloon would sustain a weight of five tons; but, as the "ship" when fully equipped would itself weigh three and a half tons, its net carrying capacity was one and a half tons. Dr. Bland was of the opinion that the ship would develop a velocity of fifty miles an hour and declared that on a non-stop voyage, the distance between England and Australia could be covered in four or five days. The splendid work of Lawrence Hargraves is mentioned and receives well merited commendation. Hargraves's work began with the study of the movements of birds, fishes and insects. On August 6, 1884, he delivered a lecture before the Royal Society of New South Wales on "The Trochoid Plane"; this was the first public announcement of the possibility of achieving this form of artificial flight. Professor Threlfall was so impressed with the investigations carried out in New South Wales, that he said: "Sydney would one day be famous not so much for its beautiful harbour as for the fact that it had been the home of Lawrence Hargraves, the inventor of human flight. "Aviation" is contributed by George A. Taylor, Esquire, editor of *Building* and will repay perusal.

The article on the botanic gardens was prepared for the encyclopædia by Robin J. Tillyard, D.Sc., F.R.S., Head of the Biological Department, Cawthron Institute, Nelson, New Zealand. He discusses the botanic gardens of all the capital cities in the Australian Commonwealth. We shall, however, briefly mention the genesis of the botanic gardens at Farm Cove, Sydney, perhaps the oldest institution in Australia. The beginning of the botanic gardens was coincident with Governor Phillip's occupation of Sydney Cove. "One of his first acts after arrival in Port Jackson was to set apart land for a farm and a garden on the cove immediately east of the township called by the blacks Wockannagully, but by Phillip renamed Farm Cove." On June 13, 1816, Governor Macquarie formally dedicated the place as a botanic garden and appointed Charles Fraser as the first superintendent. Thousands of people have visited the Sydney Botanic Gardens and have seen the "Wishing Tree," but few know its history. The large Norfolk Island pine growing in the path leading from the main entrance of the gardens in the Domain to the lower gardens once grew in the governor's garden in Phillip Street. It was shifted by Macquarie to its present position where it has stood the silent witness of the vicissitudes of Australia for over a century. This article and the following one on Australian Botany will be found of interest to the lover of Australian history, the lover of Nature and others.

For the essay on education we are indebted to Professor Tucker, M.A., Litt.D., C.M.G., formerly Professor of

Classical Philology in the University of Melbourne. In this article the history of the primary and secondary schools under government control comes under review. It is only necessary to mention the name of this contributor to know that the article is authoritative, informative and interesting. We are told that no schoolmaster accompanied the "first fleet," this not only discloses a grave oversight on the part of the authorities in England, but at the same time speaks volumes for the respectability of those whose duty it was to train up the youth in the way he should go. "The first modest endowment of education began in 1794 with a grant to Richard Johnson and William Richardson of £10 *per annum* from the Society for the Propagation of the Gospel." Professor Tucker has included an illuminating illustration "The Education Ladder." By it we can see at a glance the general scheme of State education in New South Wales in the year 1923. At the foot of the chart the beginnings of education—the *Kindergarten* and infants schools—are represented diagrammatically, while at the head the university is pictured. There is an organic union between the two etchings which can be traced with facility. To those who wish to extol or defend the Australian system of education, this article should be helpful.

An historical contribution on exploration by land and exploration by sea from the pen of the late Walter J. Jeffery consists of two articles of considerable length occupying twenty-one pages. Here we have an account of the birth, infancy and early years of the Australian nation. It is the story of romance, adventure, heroic effort, hardships patiently endured, difficulties met and overcome, dangers faced with a smile and success attained. Mr. Jeffery gives an item of history not generally known. In the year 1798 a proposal was made by Sir Joseph Banks to send Mungo Park, the celebrated African traveller, out to New South Wales to explore this country, but for some reason the proposed visit was abandoned. Macquarie's administration was fruitful of much activity. In the year 1813 the Blue Mountains were successfully attacked by those daring spirits, Blaxland, Lawson and Wentworth who blazed the track across what was till then an impenetrable barrier. This conquest was the key which opened the door leading to those fertile regions west of the mountains. There is an illustration showing the tracks of the early explorers—Oxley, Hume, Sturt, Cunningham, Mitchell and Strzelecki—whose efforts helped to shed light on the dark continent of Australia. The history of the work of the later explorers is well told and much information is contained within the limits of the article. "The summary of the exploration and survey of the Australian waters (*id est* the coastal waters of the mainland, Tasmania and the adjacent islands) commences with the discoveries of Captain Cook on the east coast." The record of the great work, survey and cartographic, of Cook, Furneaux, Phillip, Bass and Flinders and others as well as that of the more recent marine surveyors on the *Beagle* and *Rattlesnake* provide much interesting and profitable reading. To know that the man who suggested the name, Australia, to this continent was Matthew Flinders will come as news to many. The name was objected to by Sir Joseph Banks and others, but Macquarie adopted Flinders's suggestion as soon as he came across it.

Under the caption "Federation" there is an excellent *résumé* of the constitutional history of Australia from the earliest days till the time when the different colonies united to form the Commonwealth of Australia. "The early history of Australia is a record of separation. The first colony, New South Wales, when founded in 1788, comprised the whole continent east of the 135th meridian, together with Tasmania and (later) New Zealand. The developments of the first 71 years included the lopping of pieces of this territory and the recognition of them as separate colonies, until only the portion now known as New South Wales remained. But almost as soon as the separating process commenced, it was found wise to modify it by various attempts at relinking the separate parts." How this was done, when and by whom it was done is told in this article.

The account of the establishment of the Australian hospitals is contained in an article occupying three and a half pages. The institutions under review are the main hospitals in each State. The Sydney Hospital has a peculiarly interesting history. This is due not only to its origin which goes back to the early days of Australian settlement, but also to its association with the pioneers of Australian medicine many of whom were connected with either the institution in Macquarie Street or its predecessor in George Street North. John White, the first Surgeon General, William Balmain who attended Governor Phillip after he had been speared by the natives at Manly, Thomas Jamison, surgeon's mate on H.M.S. *Sirius* during the voyage of the "first fleet," D'Arcy Wentworth, father of Australia's greatest patriot, William Redfern who was a very youthful surgeon's mate on board H.M.S. *Standard* during the mutiny at the Nore, and who for some quite innocuous remarks at that time was transported to this country for life, James Mitchell, the father of David Scott Mitchell by whose munificence the Mitchell Library came into being and other well known pioneers were all medical officers of the Sydney Hospital. It was to the Sydney Hospital, also, that Miss Lucy Osburn and five nursing sisters (Florence Nightingale's nurses) came in the year 1868. These ladies were the first trained nurses to arrive in Australia and it was owing to their efforts that the hospital became a training school for nurses and the old illiterate women attendants were dispensed with. The article is full of interest to the medical historian.

The article on public libraries contains much information about those in each of the Australian States; there is also an account of the Commonwealth National Library. By a provision of the Commonwealth *Copyright Act* of 1912 the publisher of any book, pamphlet and other literary production printed in Australia, is required to supply a copy to this library. "The first free public library in Australia was founded in Melbourne in 1853, the existence of which was made possible mainly by the zealous efforts of Redmond Barry and the active sympathy of Governor Latrobe." Although this is so, "the origins of the free public library of New South Wales date farther back than those of the Victorian library though its establishment as a public institution was later." The origin of the Sydney Free Public Library is curious and interesting. In 1821 a number of the leading citizens made lists of their own books and so a consolidated catalogue was made of the books in private libraries. Opposite the title of each book listed in this catalogue were placed the initials of the owner. By this curious arrangement Australia had a library catalogue before it possessed a library. This scheme was necessarily limited in scope and unable to meet the increasing demand for new books. On February 3, 1826, therefore, the Australian Subscription Library and Reading Room was established. This was the parent of the Free Library at the corner of Macquarie and Bent Streets which we know today. The Free Public Library was opened on September 30, 1869, as a reference library; it contained about twenty thousand volumes. People of all sorts and conditions read and love books; if their affection for literature extends as far as libraries, their origin, construction, maintenance and growth, they will find much to interest them in this section.

We shall not comment further on the subject matter of "The Illustrated Australian Encyclopedia"; suffice it to say that the articles untouched in this review are of the same quality as those to which we have directed our comments. After an extended scrutiny, we have no hesitation in saying that "The Australian Illustrated Encyclopædia" is a great work, an excellent work. To say that it is free from imperfections would savour of hyperbole, but the imperfections we encountered are fewer and less gross than we had expected.

The volume contains twenty-seven coloured and other full page plates besides two hundred and forty-two illustrations in the text. The coloured plates are excellent and reflect great credit on the artists and block maker. We congratulate the publishers on their patriotism in producing this work and we congratulate them, too, on the success of their experiment, probably the greatest publishing experiment ever undertaken in all these lands.

The Medical Journal of Australia

SATURDAY, DECEMBER 19, 1925.

Medicine in the Federal Capital.

ON September 11, 1925, the members of the South-Eastern Medical Association gathered together at the Hotel Canberra, in the Federal capital, and held the first organized medical meeting within the territory. This historic event received the recognition and support of the New South Wales Branch of the British Medical Association. Dr. W. H. Crago, the Honorary Treasurer of the Branch, and Dr. J. Adam Dick, C.M.G., representative of the Branch on the Federal Committee, attended the meeting and contributed to its success. The importance of the occasion, however, is not due to Dr. Crago's interesting account of the financial stability of the New South Wales Branch of the British Medical Association nor to Dr. Dick's contributions to the medico-political discussions nor to the two excellent papers read by Dr. A. L. Dawson and Dr. H. G. Leahy. The history of Canberra lies in the future and it is safe to assume that the medical profession will play some part in the shaping of its destinies. Hitherto the medical practitioners of Queanbeyan and Yass have provided the medical care of the inhabitants of this fertile and favoured area. The capital city of Canberra has come into existence and the old state of affairs no longer suffices. It is too early yet to anticipate the medical needs of the capital city in a few years' time, but it is certain that at first no great strain will be placed on the medical profession. The arrangements made by the Federal Capital Advisory Committee in regard to the staffing of the hospital and to the medical attendance on the persons in governmental employment within the territory appear to cover the immediate requirements of the people. Canberra will be self-contained as far as this is possible and the first medical practitioners will probably have no difficulty in performing all the duties required of them during the next year

or two and enjoy ample time for study and recreation. Later the supply of medical practitioners will adjust itself in accordance with the demand. There is never any real difficulty in this regard. Nor need there be any misgivings concerning the control of the public health. The problems will not be those of a large city for many years. The Commonwealth Department of Health, presumably, will soon have its headquarters in Canberra. The extension of its activity during the past few years indicate that the organization will be an increasingly complex one. Then as now its undertakings will extend over the whole Commonwealth. The quarantine service, the industrial hygiene service, the laboratory service, the tropical hygiene service and the sanitary engineering service will continue as assets for the people of Australia. If the Royal Commission on Health adopts the recommendations of the Federal Committee concerning the cooperation between the practising portion of the medical profession and the health authorities, the Commonwealth Department will take a more active part in the coordination of efforts to reduce disease and to prolong life than it has been able to do in the past. It would be easy to speculate concerning the future development of preventive medicine in Australia and these speculations would necessarily include the extension of the powers and responsibilities of the Commonwealth Department of Health. It may be that the removal of the seat of Federal Government will be coincident with the beginning of an extensive reform of the health services. There has been too little collaboration between the various authorities, too little uniformity of legislative powers and too little mutual help in the administration of the health laws. It has been pointed out in these columns on many occasions that the tasks connected with the prevention of disease are the same all over Australia and that the science of hygiene does not sanction great variation in the expedients adopted to attain this end. The obvious illation is that the Federal authority should be given wider and more power. Perhaps at a not distant date a large meeting of the medical profession may be convened to be held in Canberra to consider the problems connected with the preservation of the health of Australian

citizens. The first meeting was an unqualified success. There is every prospect that great results will be achieved at some of the meetings to be held in Canberra.

Current Comment.

THE CONGO RED REACTION.

DURING recent years various attempts have been made to reconcile the varying changes in the colloids of the body with variations in the immunity processes of the organism. There is much evidence to show that immune substances are bound up with the protein molecules. From the theoretical point of view it is questionable whether an immune substance exists as a separate entity. It would appear to be more probable that certain physical changes in the colloidal albumins and globulins determine the immunity reactions of the organism. The significance of Lange's gold sol test depends on changes in the dispersion of the colloids of the spinal fluid in definite pathological conditions. Similarly an attempt has been made to associate immunity processes in certain pathological conditions with changes in the precipitation of proteins by some of the hæmolyzing agents. One of these, Congo red, has attracted considerable attention, especially since Ostwald has pointed out that this substance is in effect a negatively charged dispersoid which is capable of being precipitated. The changes in the dispersion velocity of Congo red in the presence of an acid or alkali can be demonstrated both by the precipitate induced and by the change in the colour. Dr. F. Erdstein and Dr. E. Silberstein have found that owing to the want of uniformity of technique and to the employment of unsatisfactory methods, it has been impossible for investigators to determine under which conditions these reactions to Congo red occur.¹ They have devised a technique according to which carefully prepared, standardized reagents are used under quantitative conditions. They employ $\frac{1}{500}$ hydrochloric acid as the precipitant and 0.2% solution of Congo red in distilled water as the main reagent. Their first tests revealed that while normal serum yielded no reaction, as indicated by a change of the red colour to violet, bluish-violet and violet and by the absence of precipitation, the serum of persons suffering from carcinoma, nephritis and other renal conditions, hypertonicity, cardiac insufficiency, pneumonia, diabetes, cirrhosis of the liver, pulmonary tuberculosis and several other diseases yielded a reaction in varying degree. It is held that this indicates a diminished protective reaction. They then separated the lipoids of the serum from the albumin and found that the lipid-free fraction of the serum was capable of inhibiting the precipitation and change in the coloration of Congo red by hydrochloric acid, but not the lipid fraction. Following the matter further they ascertained that the globulins played no part in the

reaction; it was entirely a function of the albumin of these pathological sera. They also found that while the lipoids themselves appeared to be inert, the presence of the homologous lipid with the albumin augmented the inhibition to some extent. It must therefore be recognized that although these changes have no value as differential diagnostic signs, they indicate generally a loss of protective power of serum. Although non-specific, the change may be of great importance in immunity processes.

LEAD AS A THERAPEUTIC AGENT.

THE world of science dislikes dramatic display and limelight. The man who allows himself to be boosted in the daily press and particularly in that section of it that revels in elephantine headlines and sensational captions, is not a true scientist. It is, however, well nigh impossible to prevent startling and usually misleading paragraphs from appearing in the daily newspapers when someone claims that he has discovered a successful method of treatment of a deadly disease such as tuberculosis or cancer. Thoughtful folk who are not prone to accept hypotheses and ideas as facts, remain unmoved when these garbled accounts of medical work are addressed to the lay public. They either adopt a cautious, critical attitude of mind or treat the announcements as unworthy of any serious attention. In parenthesis it may be noted that the introduction of a reputed "cure" of cancer or other disease of obscure pathogenesis, that is not based on established ætiological data, is empiricism and in consequence the treatment is probably worthless.

Professor W. Blair Bell has been employing various preparations of lead in the treatment of malignant disease for upwards of twenty years. This treatment is not purely empirical; it relies on an alleged selective action of lead on pathological cells. Whether his views on its efficacy be correct or mistaken, it must be admitted that he has been very assiduous in investigating the subject from many aspects. He has recently published together with Dr. W. R. Williams and Dr. L. Cunningham some notes concerning the toxic effects of lead observed in his patients and induced in animals.¹ The authors state that about two hundred patients with malignant disease have been given intravenous injections of lead in various forms. Lead acetate, lead iodide partly in a colloidal state and compounds of lead and thyroiodin and of lead and hæmoglobin were used for a long time. The last fifty-eight patients have received injections of metallic lead in colloidal form. No further information is given at present in regard to the preparation used. When dealing with the production of nausea and vomiting they intimate that it is possible that these symptoms are due to the foreign proteins in the colloidal solution. This sentence raises the question whether the lead is actually in a colloidal state or whether it does not exist as an albuminate or other organic compound. A further article is promised in which more details concerning the administration of the

¹ *Wiener Medizinische Wochenschrift*, August 8, 1925.

¹ *The Lancet*, October 17, 1925.

preparation will be given. In their present communication they analyse the toxic effects of the lead and end by warning those who have not complete laboratory facilities at their disposal and who have not studied the actual treatment of patients, not to attempt to treat persons with malignant disease in this way. We are disposed to add that unless there is very definite evidence that lead injected into the veins actually cures cancer, the dictum of Kunkel should be upheld. Kunkel urged his students not to employ lead for internal medication on account of its dangerous toxic qualities.

As has been known for very many years, some people are more susceptible to lead than others. Professor Blair Bell and his colleagues have noted that large tumours tend to increase the patients' tolerance to lead. Naturally they found that the minimal toxic dose bore some relation to body weight. Males are less susceptible than females, but their weight is usually greater. Young people stand lead less well than do persons between the ages of fifty-five and sixty-five.

In describing the toxic effects, the authors point out that formerly they gave small doses over a long period, but more recently they have been administering massive doses which have been repeated a few times at long intervals. In this way they avoid cumulative effects and they maintain that the signs of acute poisoning are usually short-lived. The massive dose is 0.1 gramme. It appears that up to four grammes of lead acetate have been given by mouth without untoward symptoms appearing. On the other hand Téléký has computed that one milligramme of lead absorbed daily by susceptible persons over a long period may induce toxic symptoms. S. A. Smith agrees with this statement, but records that in the Broken Hill miners the continuous absorption of from one to two milligrammes each day has produced symptoms. It has been claimed that ten grammes of lead is the lethal dose. The reliability of this statement may be and has been challenged; it signifies that the lethal dose is about 0.160 gramme per kilogram body weight. In dogs and rabbits the lethal dose varies between six and twelve milligrammes per kilogram body weight. It is safe to assume that in man there is risk to life if sixteen milligrammes per kilogram body weight are absorbed. This quantity represents one gramme for a person weighing ten stone.

Punctate basophilia occurred frequently among Professor Blair Bell's patients. He claims that this phenomenon does not occur in normal people, but it is seen in many pathological conditions other than lead poisoning. Polychromasia, the appearance of nucleated red corpuscles, anisocytosis and poikilocytosis and anaemia characterized by a considerable reduction of hæmoglobin and but a slight reduction in the number of erythrocytes have been observed after the injection of between 0.14 and 0.83 gramme of lead. If the bone marrow is affected, the anaemia may persist. The treatment often leads to a leucocytosis and a relative lymphocytosis. Both appear to be transitory.

Turning to the alimentary system, Professor Blair Bell and Drs. Williams and Cunningham record

that they have seen the blue gum line only three times in their patients. They suggest that this infrequency may be due to the fact that by introducing the lead into the veins, it does not afford the sulphuretted hydrogen in the mouth an opportunity of fixing the metal superficially in the gums. Nausea and vomiting have been observed, but the authors are disinclined to attribute these symptoms to the lead. Lead colic was observed only after massive doses.

While psychopathic changes were observed in a few patients, not one manifested wrist drop or other involvement of the peripheral nervous system. This has caused Professor Blair Bell and his colleagues considerable surprise.

The most important and dangerous of the deleterious effects of the treatment were those on the kidneys. Often the quantity of urine diminished and oedema was not uncommon. After massive doses the urea content of the blood increased and the total quantity of urea excreted lessened. Opportunity presented itself to the three investigators to study the kidneys of two patients who died after the treatment had been applied. The patients had epithelioma of the face and sarcoma of the femur respectively. Cloudy swelling of the tubules with dilatation and some deposit of pigment were seen. Similar results were produced in dogs with spontaneous malignant tumours by the injection of lead. The lead caused congestion of the liver and deposits of hæmosiderin in both patients and in the dogs.

While Professor Blair Bell claims that he has been able to prevent or minimize the baneful effects of lead by careful study and experiment, the fact remains that he has recorded signs and symptoms of lead poisoning of the severity that corresponds to the doses injected. He maintains that his records practically represent "the difficulties through which (they) have had to fight (their) way to reach comparative safety." It is evident that Professor Blair Bell set out to prove that the damaging action of lead could be exploited in the treatment of malignant disease. Others have had the same idea, "Cuprase" was introduced for the same reason. More than that the whole basis of Röntgen ray therapy consists of the same argument, that the agent is capable of destroying tissue cells and that by limiting the amount of the agent damage will be inflicted on pathological cells with little or no injury to normal cells. It is unwise to start a research with a thesis demanding proof. The danger of finding the evidence required to prove the thesis by an unconscious adjustment of the conditions of experiment is very great. Similarly Professor Blair Bell believes that he has reached comparative safety, but he warns the uninitiated not to wander into these treacherous passes. He has yet to demonstrate that metallic lead or lead albuminate has a specific affinity for cancer cells and that this affinity is strong enough to insure that the pathological cells will claim sufficient of the metal to convert the sublethal into a relatively harmless dose as far as the normal tissues and organs are concerned. In the absence of this evidence we are compelled to await his further article with suspended judgement.

Abstracts from Current Medical Literature.

GYNÆCOLOGY AND OBSTETRICS.

The Function of the Ovary.

B. ZONDEK and S. ASCHHEIM (*Klinische Wochenschrift*, July 16, 1925) give in detail the results of their experiments on mice regarding ovarian function and the origin of its hormone. Implantation of pieces of human ova into castrated mice caused a reestablishment of the menstrual cycle. The hormone is situated in the walls of the Graafian follicle and also in the *liquor folliculi*. From the former site it is poured directly into the blood stream, from the latter it reaches the blood by the lymphatics of the abdominal cavity. The hormone is produced in the thecal cells. No traces were found in the other organs of internal secretion except the placenta. If placenta be implanted or given as food to mice, the menstrual cycle is restored.

Post Mortem Cæsarean Section.

E. KOLISCH (*Wiener Medizinische Wochenschrift*, June 6, 1925) reviews the literature of *post mortem* Cæsarean section. He gives the details of six cases in which he has performed the operation. Only one child was born alive and remained living. One child died shortly after birth, whilst the remaining four were stillborn. These results are not regarded as very encouraging despite the fact that all the mothers were in the clinic and the longest period before death of the mother and operation was twenty minutes. The heavy mortality was mainly due to the prolonged death agony of the mother. The best results would be obtained in cases of sudden death.

Extra-Uterine Pregnancy and Cystic Diseases of the Ovaries.

M. BECKMAN (*Wiener Medizinische Wochenschrift*, May 30, 1925) states that cystic changes in the ovaries were found in forty-six out of one hundred and thirty-three cases of extra-uterine pregnancy. In twelve of the forty-six patients both ovaries were affected, in nine only the ovary on the opposite side and in twenty-five the ovary on the same side as the pregnancy, was the seat of the cystic change. In addition nearly half of the patients suffered from definite pathological conditions of the opposite tube. The differential diagnosis is not always easy and the author advises insertion of an exploring needle into the pouch of Douglas in doubtful cases. He has not seen any harmful results from this procedure. When both ectopic pregnancy and disease of the appendages are present the site of the former may be determined by the situation of the pain. At first it is felt only on the side of the pregnancy and later mainly on this side.

Interstitial Pregnancy.

K. HELLMUTH (*Klinische Wochenschrift*, July 23, 1925) states that the diagnosis of interstitial pregnancy is seldom made before operation. He illustrates his remarks with the histories of two cases. When the abdomen is opened the characteristic signs are elevation and elongation of one uterine cornu associated with its relationship to the round ligament. If the origin of the round ligament be proximal to the swelling the latter is caused by ordinary extrauterine pregnancy. With interstitial pregnancy the round ligament is either lateral to or arises from the swelling.

Wertheim Operation for Carcinoma Uteri.

W. WEIBEL (*Wiener Medizinische Wochenschrift*, July 11, 1925) summarizes fifteen hundred cases operated upon by Wertheim during the past twenty-five years. Over one thousand patients had been observed for more than five years. Reference is made to the methods of anaesthesia employed. Deaths were frequent at first when a general anaesthetic was employed. Improvement occurred when the preliminary cauterization of the cervix was done without anaesthesia, but the best results were obtained when spinal anaesthesia was used. Tables are given of the length of cure and of recurrences. Of the tumours 51% were operable and the operation mortality varied from 42% at first to 6% later. Death was due mainly to infection of the abdominal cavity and to a lesser extent to cardiac failure and pyelitis. Haemorrhage, embolism, intestinal complications and pulmonary disease played a smaller rôle. Emphasis is laid on removal of glands even though found to be infected. Injury to the ureters was important. Implantation gave good immediate results, but most patients died within three years. Fistulae may develop without any wounding of the ureters and in half the cases spontaneous healing occurs. In the remainder the best treatment is nephrectomy. Vesical fistulae tend to heal spontaneously. Twenty-four patients who were pregnant and suffered from carcinoma were operated upon and fifteen were alive five years later.

The Leucocyte Count in Ectopic Gestation.

LILIAN K. P. FARRAR (*Surgery, Gynecology and Obstetrics*, November, 1925) reports the results of a series of observations made for the purpose of determining the value of the leucocyte count as an aid to diagnosis in ectopic gestation. She finds that in ectopic gestation the leucocyte count fluctuates according to the amount of fresh blood being thrown into the peritoneal cavity and the rate of absorption. The leucocyte count tends to drop quickly to normal as the blood in the peritoneal cavity is absorbed or walled in; 48% of one hundred and fifty women with ectopic gestation had a normal leucocyte count before opera-

tion was performed. The count was normal in twenty-nine women with unruptured tubal pregnancy in which there was no free blood and in forty-three with ruptured pregnancy in which the blood was walled in. The count in one hundred and fifty patients was an index to the amount of free blood in the peritoneal cavity. The polymorphonuclear leucocyte count was increased definitely only when there was fresh blood in the pelvis and increased in direct proportion to the amount of recent blood found at the time of operation. The fluctuating leucocyte count together with the moderate rise of temperature differentiates ectopic gestation from a purulent salpingitis with its more uniform high leucocyte count and fluctuating temperature. In rupture of tubal pregnancy the steadily rising leucocyte count indicates active bleeding before the fall in the number of erythrocytes or haemoglobin gives warning of the condition. The leucocyte count to be of diagnostic value must be taken at least daily and in critical conditions each hour. It should be used in conjunction with the history and clinical findings.

Osteomalacia.

J. PRESTON MAXWELL and LEE M. MILES (*Journal of Obstetrics and Gynecology of the British Empire*, Autumn, 1925) report the result of a survey of osteomalacia in China, which is at present one of the world centres for the study of the disease. In the special area involved the incidence is from 1% to 3% of child-bearing women. Whilst its effects are more often seen in pregnancy and the puerperium, it frequently begins about the time of puberty. The disease is one due to a deficiency in diet, the principal being in a shortage of mineral content and the activation for calcium metabolism. Lack of sunlight and movement are contributing factors in its production. The signs of rickets are not seen in the bones of full time foetuses from mothers with osteomalacia, but those of osteoporosis are. There is, however, a little evidence to suggest that these infants develop rickets more easily than normal children. The sequelae of the disease are twofold: the one, deformity of the pelvis, the results of which on labour may be counteracted by a carefully planned Cæsarean section; the other, interference with marital relations which may be treated by a new operation in which portions of the pubes and ischium are resected. The ovaries have nothing to do with the disease and it is not necessary either to remove them or to tie the uterine tubes, provided that the woman is treated with cod liver oil and calcium and that this treatment is continued during all future pregnancies. By improving the diet and supplying cod liver oil it should be possible in time to stamp out the disease. Animals also suffer from this disease and can be cured by the administration of cod liver oil.

NEUROLOGY.

Social Significance of Huntington's Chorea.

ESTELLA M. HUGHES (*American Journal of Psychiatry*, January, 1925) states that there were forty-six admissions of patients suffering from Huntington's chorea to the Kalamazoo State Hospital, Michigan, in a period of fifty-two years. These gave a history of one hundred and seventy-two cases of the disease in their families, three-fourths of which were traced through the fifth and sixth generations. A study of the two hundred and eighteen cases showed the following. For each hospitalized choreic approximately four others were found in the family. What has been previously stated with respect to the inheritance of Huntington's chorea was confirmed. It affected females slightly more than males and was passed on as frequently by a male as by a female parent. It did not arise in the children of those who escaped. Of one hundred and eighteen who had the disease, all but thirty-five married and they produced six hundred and three children. Of the children 16% died young; 25.7% were free from the disease; 26.8% developed chorea; 30% were still under the average age for development of the disease. The average age onset in the group of thirty-two families was thirty-seven years; variation ranged from seventeen to sixty years. There was no reliable indicator in early life of the later appearance of chorea. Two-thirds of the choreics showed behaviour difficulties of which assault was the most frequent and emotional instability came next. Suicide occurred five times, unsuccessful attempts at suicide seven times. Symptoms of mental disease were present in 52%. Deterioration, consisting of weakness of judgement and initiative, change in disposition, occasional delusions and rare hallucinations were found. The average period of life after the appearance of the disease was sixteen years. Sydenham's chorea arose in three individuals who afterwards developed Huntington's chorea. The families were largely of mixed race, but confined to English, Scotch, German, Irish and a few French-Canadians. Only 31% of the choreics became public charges. Twenty-six of the families were in the United States prior to the year 1800. In the matter of prevention education of the public to realization of the dangers of transmission or the employment of voluntary sterilization are suggested.

Diagnosis of Insanity in Young Adults.

H. S. LE MARQUAND (*The Lancet*, March 7, 1925) writes specially of *dementia præcox*, the common mental disorder of young adults. Following an insidious onset it runs a prolonged course. Consequently upon inability to grapple with his environment the patient turns from reality to a life of phantasy in a world of his own and

eventually shows progressive deterioration, affecting first his emotions and then his intellect. The insidious onsets make diagnosis difficult because the condition is liable to be mistaken for one of the common neuroses (neurasthenia, hysteria, compulsion and anxiety neuroses). The differential diagnosis here is important because the prognosis and treatment in the several conditions are wholly different. The diagnosis of *dementia præcox* rests mainly on careful consideration of the history of the case and the development of the personality of the patient and on recognizing the typical mental symptoms and physical signs of which the most characteristic are the emotional apathy and loss of energy and the enfeebled peripheral circulation.

Capillary Lumbar Puncture.

N. ANTONI (*Revue Neurologique*, May, 1925) applies himself to the prevention of headache, vomiting and other unpleasant complications following lumbar puncture. He agrees with the belief that after such puncture as ordinarily performed there ensues a leakage through the perforation in the *dura mater* which causes a decided fall of intraspinal pressure and is the radical injurious factor. It explains why disagreeable effects are sometimes obviated by keeping the patient for twenty-four hours in the horizontal position or better still with the feet elevated. Bearing on the same point puncture headache is more likely to occur when normal than when abnormal fluid is found, simply because the latter usually is and the former is not excessive in quantity. The main prophylactic rule which Antoni desires to emphasize is to use a small needle (external diameter 0.45 millimetre) and so avoid making a large and leaking perforation in the *dura mater*. He recommends a conducting cannula, three and a half to four centimetres long with conical point with which the skin and other coverings are first pierced, and along which the fine needle without mandrin is then passed. The needle is alone allowed to enter the *dura*. In several hundred cases no disagreeable after effects have happened, but the patient has always been kept in bed for twenty-four hours.

Mental Hygiene of the Child.

D. A. THOM (*New York State Journal of Medicine*, October 1, 1925) emphasizes the point that if the medical practitioner were to investigate the family history and general environmental situations with more care, he would find frequently the underlying cause or causes of many of the undesirable habits, personality deviations and moral twists seen in children. In many instances the necessary therapeutic measures would thus become obvious. In other cases a careful analysis of the whole family problems should be undertaken. It would be a time-absorbing task, but worthy

of the coöperation of psychiatrist, psychologist and social worker. The mental health of the child is largely in the hands of the general practitioner, not the specialist.

IRA S. WILE (*ibidem*), considering the mental hygiene of the child in its relation to the development of character, concludes that the mental hygienist should aim at bringing about normal mental function as the basis of rational character development. Character evolved from conscious selection of traits is established upon firmer foundations than that arising from coercion, over-direction and compulsive over-solicitude.

Epilepsy as a Symptom of Disseminated Sclerosis.

S. A. KINNIER WILSON and H. J. MACBRIDE (*Journal of Neurology and Psychopathology*, August, 1925) have collected eight records from the literature of an association of epilepsy or epileptiform attacks with disseminated sclerosis, to which they add seven personal observations. From this it may be gathered that the association is rare. In discussing pathogenesis they maintain that since epilepsy is a cortical symptom, the fits are somehow the direct or indirect result of the disseminated disease and that for Jacksonian fits it is necessary to postulate an underlying basis of acute cortical alteration, presumably a patch of encephalitis. To explain generalized epileptic seizures it is not easy to envisage any other pathogenic process than one which is toxic or toxi-infective. Little or nothing is known of the exact pathogenesis of these seizures as that of similar prodromal seizures in cases of cerebral tumour. Nevertheless, epileptic or epileptiform seizures must be accepted as occasional symptoms of disseminated sclerosis; in this respect the disease falls into line with other cerebral toxi-infective states. This contribution is purely clinical, none of the patients have come to autopsy.

The Frequency of General Paralysis of the Insane.

OSTMANN (*Psychiatrisch-Neurologische Wochenschrift*, September 26, 1925) gives a record of the admissions of patients with general paralysis of the insane to the Schleswig hospital during the past twenty-four years. He finds that between the years 1915 and 1918, there was a distinct increase, perhaps attributable to food restrictions during the war. Thereafter there has been a decided decrease. Ostmann suggests that this decrease may be ascribed variously to the previous or premature death of many paralytics resulting from food restriction or to the fact that more than twelve years have passed since treatment by "Salvarsan" or malaria was introduced or to the possibility that general paralysis has become less malignant. Among other points of interest it is noted that the duration of illness seems to be lengthening.

British Medical Association News.

ANNUAL MEETING.

THE ANNUAL MEETING OF THE VICTORIAN BRANCH OF THE BRITISH MEDICAL ASSOCIATION AND OF THE MEDICAL SOCIETY OF VICTORIA was held in the Medical Society Hall on December 2, 1925. At the opening of the meeting the chair was taken by Dr. R. J. BULL, the Vice-President.

Election of Members of Council.

The election of members of the Council and of the Committee of the Medical Society of Victoria was announced as follows:

(1) Elected as representatives of group Divisions:

Metropolitan Divisions.

Melbourne: Dr. J. W. Dunbar Hooper, Dr. W. G. D. Upjohn, Dr. J. F. Wilkinson.
Western: Dr. B. Milne Sutherland.
Eastern: Dr. Walter Summons.
South-Eastern: Dr. F. L. Davies.

Country Divisions.

Central: Dr. A. C. H. Salter.
North-Eastern: Dr. J. W. Florance.
Southern: Dr. R. G. McPhee.
South-Western: Dr. S. C. Fitzpatrick.

As no nomination had been received from the Southern, South-Central, Northern and North-Eastern Metropolitan Divisions and from the Northern, North-Western and South-Eastern Country Divisions, these positions on the Council would be filled by the Council under Rule 11.

(2) Elected by the general body of members:

Dr. S. S. Argyle.	Dr. L. S. Latham.
Dr. R. J. Bull.	Dr. Fay Maclure.
Dr. R. M. Downes.	Dr. J. Newman Morris.
Dr. R. H. Fetherston.	Dr. W. J. Penfold.
Dr. R. Fowler.	Dr. Allen Robertson.
Dr. Victor Hurley.	Dr. H. Douglas Stephens.
Dr. A. L. Kenny.	Dr. B. T. Zwar.

The scrutineers, Dr. C. H. Mollison and Dr. F. L. Davies, reported that 371 ballot papers had been returned of which six were informal.

In view of the fact that Dr. Argyle could be present for a limited time only owing to his attendance being urgently necessary at that evening's session of the State Parliament, Dr. A. L. KENNY moved the suspension of business as on the agenda paper in order that the President might deliver his address.

President's Address.

The President, Dr. S. S. ARGYLE, said that before commencing his address he wished to express his appreciation of the consideration and courtesy extended to him during his year of office. In his dual position he had often felt that he was unable to carry out the duties of President of the Branch as he would have wished. There had been no lack of loyal assistance, however, for which he felt that he must express his gratitude. He then delivered his address (see page 691).

Dr. A. L. KENNY said that he esteemed it a privilege to have been asked to propose a vote of thanks to the retiring President. Dr. Argyle's interesting and instructive address had given them much which demanded their earnest consideration; it might be described as paternal in that it opened their minds to a very important side of their duty. They could best pay the President a mark of respect by absorbing his advice and incorporating it in their practice. Dr. Argyle had very characteristically expressed his thanks for the courtesy he had experienced as President. That courtesy begets courtesy was a very old saying and unfailing courtesy had distinguished their retiring President. Their President had attained one of the highest positions in the State, to which he had brought energy and capacity and had added dignity and lustre. As fellow

members of the British Medical Association they felt that the President had exalted them by his worthy actions in his high office in the State.

Dr. Kenny said that he would not prolong his remarks to the extent necessary for a survey of the incidents of Dr. Argyle's year of office. He would, however, remind members that in spite of his many duties Dr. Argyle found time to journey to Warrnambool and preside at the first divisional meeting of the Branch. The presence of the President on that occasion was a potent factor in the success which distinguished the meeting and was appreciated by the members of the South-Western Division as a high compliment. It would always be remembered that Dr. Argyle, as President of the Branch, had dedicated the new Medical Society Hall to the service of the present and succeeding generations of medical men. The past year had been one of very great moment to the Branch and he hoped that Dr. Argyle would feel that no year of his life had been more crowded with pleasurable incidents. The manner in which Dr. Argyle had discharged the duties of President of the Branch merited for him the highest respect and esteem of the members.

SIR GEORGE SYME expressed the very great pleasure with which he seconded the proposal that a vote of thanks should be accorded the retiring President. It was now many years since he first met Dr. Argyle and he recollected that when he was appointed to the staff of the Melbourne Hospital Dr. Argyle was one of his first students. He had been impressed then by many of the qualities which they now associated with Dr. Argyle. The members of the Branch could not fail to appreciate the work carried out by their President under great difficulties. It was amazing that among his many onerous duties as a Minister of State he had been able to carry out those of President of the Branch so efficiently. With reference to the subject of the address Sir George Syme said that the importance of the cooperation of the individual members of the medical profession in a scheme of preventive medicine had been engaging the attention of the Federal Committee for some time and this body had drawn up a report in which the imperative necessity for such cooperation was emphasized. He had much pleasure in seconding the vote of thanks.

The vote was carried by acclamation.

Dr. Argyle very briefly expressed his acknowledgement of the vote of thanks.

Annual Report of Council.

The annual report, copies of which had been issued to members, was taken as read on the motion of Dr. W. Kent Hughes, seconded by Dr. W. G. Dismore Upjohn.

The motion for the adoption of the report was moved by Dr. A. L. Kenny, seconded by Dr. R. H. Fetherston and carried.

THE COUNCIL OF THE BRANCH AND THE COMMITTEE OF THE SOCIETY present the Annual Report for the year 1925:

Election.

At the Annual Meeting held last December the following Members of the Council and of the Committee were elected:

Dr. Stanley Argyle, Dr. R. J. Bull, Dr. R. M. Downes, Dr. R. H. Fetherston, Dr. R. Fowler, Dr. John Gordon, Dr. Victor Hurley, Dr. A. L. Kenny, Dr. L. S. Latham, Dr. F. Maclure, Dr. J. Newman Morris, Dr. Alan Newton, Dr. H. Douglas Stephens, Dr. B. T. Zwar.

The following members were elected by the Divisions: Dr. F. J. Bonnin, Dr. F. L. Davies, Dr. S. C. Fitzpatrick, Dr. J. W. Florance, Dr. J. W. Dunbar Hooper, Dr. P. V. Langmore, Dr. T. C. Ker, Dr. F. E. McAree, Dr. J. H. Pestell, Dr. A. C. H. Salter, Dr. Walter Summons, Dr. B. M. Sutherland, Dr. W. G. D. Upjohn, Dr. J. F. Wilkinson, Dr. D. Rosenberg, Dr. G. Weigall and Dr. K. C. Purnell.

These members together with the Trustees of the Medical Society (Sir Harry Allen, Dr. C. H. Mollison, Sir Charles Ryan and Sir George Syme), the Director for Victoria of the Australasian Medical Publishing Company Limited (Dr. W. Kent Hughes) and three additional coopted

members (Dr. J. R. Harris, Dr. C. L. Park and Dr. Allen Robertson) constituted the Council for 1925.

The new Council elected as President Dr. S. Argyle; Vice-presidents, Dr. H. Douglas Stephens and Dr. R. J. Bull; Honorary Secretary, Dr. F. L. Davies; Honorary Treasurer, Dr. C. H. Mollison; Honorary Librarians, Dr. W. G. D. Upjohn and Dr. R. H. Fetherston; and Chairman of Committees, Dr. J. Newman Morris.

Council Meetings.

There were twenty ordinary meetings, at which the attendances were as follows:

Dr. F. L. Davies	20	Dr. Walter Summons ..	12
Dr. J. Newman Morris ..	19	Dr. B. M. Sutherland ..	10
Dr. J. W. D. Hooper ..	18	† Dr. S. S. Argyle ..	10
Dr. Victor Hurley ..	18	Dr. W. Kent Hughes ..	8
Dr. A. L. Kenny ..	18	Dr. H. Douglas Stephens ..	8
Dr. Allen Robertson ..	18	Dr. Alan Newton ..	6
Dr. D. Rosenberg ..	18	* Dr. C. L. Park ..	3
Dr. R. H. Fetherston ..	17	* Dr. J. H. Pestell ..	3
Dr. R. J. Bull ..	16	Dr. F. J. Bonnin ..	1
Dr. R. M. Downes ..	16	Dr. P. V. Langmore ..	1
Dr. B. T. Zwar ..	16	Dr. S. C. Fitzpatrick ..	0
Dr. G. Weigall ..	15	Dr. J. W. Florance ..	0
Dr. L. S. Latham ..	14	Dr. John Gordon ..	0
Dr. W. G. D. Upjohn ..	14	Dr. J. R. Harris ..	0
Dr. J. F. Wilkinson ..	14	Dr. T. C. Ker ..	0
Dr. R. Fowler ..	13	Dr. K. C. Purnell ..	0
Dr. F. E. McAree ..	13	Dr. A. C. H. Salter ..	0
Dr. F. Maclure ..	13		

Trustees.

Dr. C. H. Mollison ..	19	Sir Harry Allen ..	0
Sir George Syme ..	6	* Sir Charles Ryan ..	0

* Absent from State.

† State Duties.

Subcommittees.

The following subcommittees were appointed by the Council. The first-named member acts as Convener of the subcommittee and the President, Chairman of Committees, Vice-presidents and Honorary Secretary are *ex officio* members of all subcommittees:

Organization.—Dr. Robertson, Dr. Gordon, Dr. McAree, Dr. Pestell, Dr. Sutherland, Dr. Park, Dr. Summons, Dr. Wilkinson, Dr. Rosenberg, Dr. Weigall.

Ethical.—Dr. A. V. M. Anderson, Dr. Latham, Dr. Alan Newton, Dr. Summons, Dr. Sutherland, Sir George Syme, Dr. Upjohn, Dr. Hooper, Dr. Maclure.

Legislative.—Dr. Rosenberg, Dr. Kenny, Sir George Syme, Dr. Hurley, Dr. Downes, Dr. Fetherston, Dr. Harris, Dr. Park, Dr. Zwar.

House.—Dr. C. H. Mollison and Dr. R. H. Fetherston.

Scientific.—Dr. Fowler, Dr. Hiller, Dr. Hurley, Dr. Maclure, Dr. Kellaway, Dr. Alan Newton, Dr. Upjohn, Dr. White.

Medical Agency.—Dr. Hughes, Dr. Downes, Dr. Mollison, Dr. Upjohn, Dr. Fetherston.

Building Committee.—Dr. Fetherston, Dr. Hughes, Dr. Mollison, Dr. Park, Dr. White, Dr. Wilkinson, Dr. Zwar, Dr. Hooper.

Library Committee.—Dr. Upjohn and Dr. Fetherston.

National Insurance Committee.—Dr. Morris, Dr. Webb, Dr. Boyd, Dr. Fetherston, Dr. Rosenberg, Sir George Syme, Dr. Upjohn and members of the Organization Committee.

Obstetrics Committee.—Dr. J. W. Dunbar Hooper, Dr. R. Fowler, Dr. H. Cairns Lloyd, Dr. A. M. Wilson, Dr. E. B. Heffernan, Dr. B. Zwar, Dr. Margaret McLorinan, Dr. B. M. Sutherland, Dr. J. Ramsay Webb.

The following appointments were made by the Council:

Bush Nursing Association.—Dr. Sutherland and Dr. Zwar.

Advisory Board to Medical Inspectors of Schools.—Dr. Zwar.

Free Kindergarten Union.—Dr. W. Kent Hughes.

The Representative Body.—Dr. J. P. Major.

The Central Council (representing Group Division).—Dr. T. P. Dunhill (two years unexpired).

The Federal Committee.—Dr. R. H. Fetherston and Sir George Syme.

Victorian Correspondent of "The British Medical Journal."—Dr. Reg. Webster (resigned).

Executive Council, Victorian Baby Health Centres.—Dr. W. G. D. Upjohn and Dr. R. M. Downes.

Post-Graduate Permanent Committee.—Dr. A. V. M. Anderson and Dr. J. W. Dunbar Hooper.

Executive of Melbourne University Association.—Dr. W. G. D. Upjohn.

Society for Combating Venereal Disease.—Dr. Fetherston, Dr. Fowler, Dr. Hooper, Dr. Maclure, Dr. Park, Sir George Syme and Dr. Weigall.

Nurses Board.—Dr. B. Zwar (at the request of the Public Health Department).

Membership Roll.

The number of members on the roll is 1,256, as against 1,180 in the preceding year. During the year there has been a gain of one hundred and sixty-two members (one hundred and fifteen by election, eight who paid arrears and thirty-nine by transfer from other States). On the other hand, eighty-six have been lost (twenty by death, six by resignation, fifty-four by transfer to other States, fourteen whose subscriptions have been allowed to fall two years in arrears), thus showing a net gain of seventy-six members. The net gain the previous year was sixty-eight.

We have to record with regret the deaths of the following members: Dr. G. Rothwell Adam, Dr. P. A. Croker, Dr. C. J. Enticknap, Dr. F. E. Hutchinson, Dr. Eustace Keogh, Dr. D. F. Laidlaw, Dr. Ottilie Noall, Dr. T. J. P. Ryan, Dr. G. Affleck Scott, Dr. T. G. Sullivan, Dr. A. S. Young, Dr. W. D. Osler.

Leave of Absence.

Leave of absence from the Council was granted to Dr. J. H. Pestell and Dr. C. L. Park while away from Victoria.

Recent Graduates.

Following on the precedent of last year the new graduates were entertained at a smoke concert. Opportunity was taken to welcome Professor Peter MacCallum and Professor F. C. Wilkinson.

Congratulations.

Dr. Stanley Argyle, M.L.A., received the congratulations of members of the Association at the last Annual Meeting on his second appointment as Minister of Health.

The Council congratulated one of its members, Dr. J. R. Harris, M.L.A., on his being sworn in as a State Cabinet Minister.

New Buildings.

The Medical Society Hall was completed during the year and the opening ceremony was performed on May 26 by the President, the Honourable Stanley Argyle, M.L.A., Chief Secretary and Minister for Public Health.

An account of the proceedings and a description of the Hall have been published in THE MEDICAL JOURNAL OF AUSTRALIA of June 20, 1925.

Council Meetings.

The Council expressed thanks to the Committee of the Melbourne Hospital for the use of a room for Council Meetings from October to May and a donation was voted to the funds of the Hospital.

Ethical.

Rules for procedure with regard to professional conduct were approved by the Council and adopted by the Branch on February 11.

In two notices where newspapers had published paragraphs with regard to operations performed by members, members concerned had written to the Council, stating that such information had been published without their consent. The editors were again written to and asked to refrain from the publication of names of medical practitioners in connexion with their attendance upon patients.

Members were informed on the monthly notice paper that the statement in a daily paper that medical men

might sign articles on medical subjects appearing in the lay press was incorrect so far as Victoria was concerned. All contributions to newspapers on medical subjects must be anonymous.

Re Broadcasting.—It was held that lectures being broadcast by wireless came within the scope of the rules regarding advertising and that permission must first be obtained from the Council.

An application by the Health Association of Australia for permission for its lecturers to broadcast their lectures on medical subjects by wireless was considered by the Council and it was resolved that the Council should give permission to the Health Association of Australia to arrange with members of the Branch to give lectures under its auspices on the prevention of disease without being required to ask for special permission for each lecturer. This permission was subject to certain conditions laid down by the Council. Non-members of the Victorian Branch of the British Medical Association should also be required by the Health Association of Australia to conform to these conditions, *videlicet*: (a) That a printed sheet of instructions should be handed to everyone who was to deliver a lecture under the auspices of the Health Association, emphasizing the fact that the aim of the Association was the education of the public in the problems of the prevention of disease, with the object of producing an intelligent appreciation of the possibilities of preventive medicine; (b) that the details of treatment of disease were not germane to that issue and that treatment should be referred to, if at all, only under general terms and for the purpose of illustration; (c) that the lecturer should see that the lecture was not made use of for trade purposes and that the instruction given was regarded as an effort to popularize the science of preventive medicine. These conditions were approved by the Health Association of Australia.

Permission was also given for broadcasting health lectures delivered under the auspices of the Prahran Council.

The following ethical rulings have been given:

1. All medical fees earned by a *locum tenens* during the period of his employment by the principal are the property of the principal.
2. It is not ethical for a medical practitioner who has sold a suburban practice and continues to practise in Melbourne, to charge double his ordinary fees to his former patients and to remit one-half to the purchaser of his practice.
3. It is not unethical for a practitioner to return to a town where he had sold his practice, after the period of his prohibition has expired.
4. There is no violation of ethical principles where a medical practitioner settled down in opposition to another medical practitioner in a town where it is asserted that there is a sufficient living for one practitioner only.
5. Members should refuse the request of life assurance companies to supply any information whatever without receiving the consent in writing of the executor or executrix of the deceased person.

A *locum tenens* should not give any information, but should in all circumstances refer the matter to his principal.

Permission was given to a member to purchase the practice of a medical practitioner who was ineligible for membership of the British Medical Association. Approval was first received by the Council from the subdivision in which the practice was being carried on.

Members were advised not to apply for appointment as medical officers to the National Provident Company, Limited, without having first communicated with the Honorary Secretary of the Branch.

The Repatriation Department sought information from a practitioner *re* an ex-soldier who was his private patient. This practitioner was advised to refuse such information unless permission was received from the patient in a letter signed by himself and that such permission should be obtained by the Repatriation Department. On being informed of this procedure, the Department agreed to observe it in the future.

Homœopathy.

Recent graduates were informed of a resolution of the Council, by which it is now possible for graduates of all Australian Universities who are members of the British Medical Association to accept positions as resident medical officers of the Homœopathic Hospital. The Medical Students' Society arranged with the management of the Hospital that the three resident medical officers should be nominated, as in the case of the other public hospitals.

Regulation 14 of the Principles of Medical Ethics provides that it is unethical for a member of the British Medical Association in Australia to meet professionally in consultation, as assistant or in any way, any practitioner who violates any of the above principles (Principle 1 refers to designating one's practice as based on an exclusive dogma, such as that of homœopathy). It was resolved to add after Regulation 14: "This prohibition shall not apply in respect of work done in the capacity of honorary medical officer to a special department at the Homœopathic Hospital."

It was resolved that the Federal Committee be asked to take into consideration Principle 1 of Medical Ethics in regard to homœopathy, on the grounds that—(a) The parent Association and English Divisions accepted as members legally qualified practitioners who called themselves homœopaths and who were members of the staff of the London Homœopathic Hospital, and that in America homœopathic practitioners were received into the medical societies and the American Medical Association.

Organization.

Two conferences were held with representatives of the Friendly Societies' Association. It was promised that irregularities with regard to supplying medical lists would be inquired into and the provisions of the Wasley Award enforced. The representatives promised to collect the fees for night work, provided the medical officer sent a list of fees due to the secretary of the lodge concerned prior to the date for summoning its quarterly meeting. The local secretary would also collect the medical examination fee for candidates for election as members. Where practicable, the Common Form of Agreement would be included in the prescription book. The Branch on its part promised to draw the attention of members to the laxity shown by some members in giving certificates of health when candidates sought admission to lodges.

It was held that medical officers of lodges in a country town were within their rights in closing their lists, but that they could not object to another doctor settling in that town and receiving lodge appointments. That a medical man was not obliged to accept on his list a newly-married wife who was suffering from a chronic illness.

It was reported to the Council by a suburban subdivision that an industrial medical officer was prescribing for employees who were patients of private practitioners.

A conference was held and this officer agreed to limit his practice to first aid, but sought permission to give prescriptions to last for one day only.

The Council collected information from all such medical officers in Victoria as to their duties and remuneration and forwarded it to the Federal Committee with the view to having a model agreement drawn up which would be suitable for the whole Commonwealth. The Committee recommended that industrial medical officers should refer the employees to their own private practitioners. As a considerable time would elapse before an agreement by the Federal Committee could be evolved, the Council is engaged in framing an agreement for this State.

Two conferences were held with the committee of the District Nursing Society. It was admitted that the medical profession was being exploited by persons who had no right to use the services of the district nurse. The Society undertook to effect an improvement in this regard, but it would not insist on a statutory declaration that the patient was indigent. The Society considered that £4 a week was a proper income limit.

Annual Conference.

The second annual conference was held on the evenings of Tuesday and Wednesday, November 17 and 18, when a number of questions of interest to the profession were

discussed. A *résumé* of the proceedings will appear shortly in THE MEDICAL JOURNAL OF AUSTRALIA.

Subdivisional Meetings.

The first of what is hoped will be a long succession of subdivisional meetings was held at Warrnambool on Saturday, March 7, when thirty-five members were present, nineteen of whom went from Melbourne. Papers were read by Dr. C. H. Kellaway, Dr. Ivan Maxwell, Dr. J. T. Tait and Dr. Henry Laurie. The meetings were held at the Hospital, where clinical demonstrations were given. A dinner was held in the evening and on the following day a motor run to places of interest was greatly enjoyed. The Council thanked the executive of the subdivision for its hospitality to the visitors. Our President attended a meeting of the Ballarat Subdivision and addressed the members on intermediate hospitals and maternity wards. The hope was expressed that the next subdivisional meeting might be held at Ballarat.

South-Western Subdivision.

Annual Report, 1924-1925.

The Division had held four meetings during the last twelve months, two at Warrnambool, one at Hamilton and one at Camperdown. At three of these meetings divisional business was transacted, and a post-graduate lecture delivered by a visiting lecturer under the auspices of the Permanent Post-graduate Committee on radiology (Dr. K. S. Cross, at Warrnambool), skin diseases (Dr. Wettenhall, at Hamilton) and diseases of Children (Dr. Douglas Stephens, at Camperdown). The fourth meeting was the large meeting held at Warrnambool in March, attended by thirty-five in all, including nineteen visitors from Melbourne. A splendid programme of four papers had been arranged by the scientific committee. A very full and accurate report of the proceedings of this meeting appeared in THE MEDICAL JOURNAL OF AUSTRALIA (April 25, page 436). Members of this Subdivision hope that the success of this meeting will prove an incentive to other country Subdivisions to hold similar meetings and appreciate the interest and assistance of the Branch Council in making their meeting a success.

The number of members in the Subdivision remains the same, thirty-nine. No new practices have been established, but two have changed hands.

Under the rule adopted last year, the Committee and Office-bearers hold office for two years. No election will, therefore, take place this year.

Obstetrics Committee.

This Committee which was appointed last year, after eight months of regular meetings, completed its task and presented its report to the Council. The members were thanked for their valuable services and the report was printed and circulated amongst members and public bodies interested. The issue has been exhausted and requests for copies have come from America, England India and New Zealand, where similar inquiries are about to be undertaken as to puerperal morbidity and mortality.

As a direct outcome of this Committee's investigations, the Edward Wilson (*Argus*) Trust Fund set aside a large sum of money to provide for a director of obstetrical research at the University of Melbourne. Dr. Argyle, Dr. Fetherston and Dr. Felix Meyer were appointed by the Council to act with the Faculty of Medicine in defining the duties of the director and making the appointment. Dr. Dunbar Hooper, the Chairman of the Obstetrical Committee, at the request of the Edward Wilson (*Argus*) Trust, was nominated by the University Council to act on the Committee. Applications were called throughout Australia and Dr. R. Marshall Allan, who has had exceptional experience in obstetrics, was appointed Director and he has now taken up his duties at the University.

Commonwealth Maternity Allowance Act.

At a meeting of the Branch it was resolved that the Branch did not consider that the existing system of maternity allowances was the best way of reducing maternal mortality and morbidity and infantile mortality.

Care of Baby and Maternity Advice.

At the request of the Commissioner of Maternity Allowances, the Council revised the issue of the pamphlets issued by the Health Department and brought it into conformity with modern medical opinion.

Permanent Post-Graduate Committee.

Two courses were held. In June and July a special obstetrics course was attended by sixty-four members, of whom ten took up residence at the Women's Hospital. For the November course there were forty-five applications for membership. Through the generosity of an anonymous donor, a prize of one hundred and fifty guineas was offered for an essay on the prevention of maternal morbidity and mortality. This prize was won by Dr. E. S. Morris, of Sydney. Three other essayists achieved special distinction, Dr. Hubert Jacobs, of Victoria, Dr. Marie Browne, of Adelaide and Dr. Ellen Kent Hughes, of Queensland.

Copies of post-graduate courses in England have been received by the Council from time to time and these have been handed to the Honorary Secretaries of the Committee, from whom all such information can be obtained.

Hospitals.

A *précis* of all resolutions of the Council for the past seven years has been compiled. To this has been added the hospital policy in regard to country hospitals, as well as reports from the Charities Board and reports as to the hospital policy of the British Medical Association in England.

The question of a uniform hospital policy throughout the Commonwealth was referred to the Federal Committee for consideration.

The Council ruled that in country hospitals where there was no resident medical officer, all the medical practitioners in that town should be eligible for appointment as honorary medical officers with beds; and that on account of routine and casualty work at least one medical practitioner should be appointed a salaried officer of the institution. This resolution was forwarded to the subdivisions for their approval, before being forwarded to the Charities Board.

At the request of the Nurses Board, the Council defined an intermediate hospital as a hospital or ward of a public hospital where patients were treated whose income made them ineligible for admission to a public hospital and was insufficient to allow them to pay the ordinary medical fees or the usual private hospital maintenance charges.

The annual conference, 1924, passed a resolution that where the district hospital accommodated cases of infectious disease, which could not be for public health reasons be attended in their own homes, the honorary medical officers should be entitled to charge a fee for their attendance in other than indigent cases. The Council forwarded this resolution to the Charities Board, which interpreted the provisions of the *Health Act* that there should be no objection to any practitioner charging a private fee. Later, Dr. E. Robertson, of the State Health Department, was asked to define the responsibility for payment of a medical practitioner who treated cases of infectious disease in country hospitals. The reply received was that the Commissioner of Public Health could see no objection to the doctor charging his own private patients in an infectious ward of a public hospital, when it was desirable that such patients should be admitted in the interests of public health. All country hospitals where infectious wards had been established, were notified of this view and by them it was referred to the Charities Board. The Inspector of Charities qualified the earlier interpretation by stating that it applied only to cases where infectious wards attached to a public hospital were worked under agreement with municipalities. In any case the fees must be collected from the patients.

All members were notified by circular that when called to cases of infectious diseases, if they desired to be remunerated for their services, they should send their cases to those hospitals only which had agreements with the municipalities from which the patients came. Should there be no such agreements, no charge for attendance could be made. Where the attending medical officers

were on the paid staff, no charge could be made by such medical officers.

The Mildura Hospital Committee propounded an insurance scheme whereby persons eligible for medical treatment at the hospital should pay a sum of £1 per annum to the hospital. The practitioners in Mildura were in favour of the scheme for in-patients only. The Council restated its attitude towards such proposals as in the case of the Lord Mayor's scheme of 1922 and that of the Railway Union hospital scheme.

(a) The hospital should be open to the indigent poor.
(b) The Council was opposed to the principle of contributory schemes whereby a contributor was entitled to hospital treatment.

Bush Nursing.

Various complaints were received from members of the Branch during the year, of which the following are instances:

(a) Where the doctor and chemist both complained that the activities of the bush nurse were going beyond reasonable limits.

The matter was reported to the Council of the Bush Nursing Association, which promised to see that the bush nurse would be informed of her limitations.

(b) At a town where two medical men are practising an effort was made to establish a bush nurse.

The Council of the Bush Nursing Association resolved that before application for a bush nurse was made from a town or district where a medical practitioner is, or medical practitioners are engaged in practice, the local committee should first consult with and obtain the approval of the local practitioners before any publicity was given to the matter. No bush nurse was established in the town in question.

(c) In the third case a number of charges were made against the bush nurse of exceeding her limitations and of diverting patients to practitioners outside the town. The matter was investigated, and a reply received from the Bush Nursing Association.

It was pointed out that, unless properly controlled, a bush nurse might delay the establishment of a full medical service in a district; she was especially likely to do this by an indiscriminate service. Whole families regardless of income limit received service from the nurse for one pound *per annum*. Subscribers were also entitled and received midwifery service at a reduced fee.

It was resolved that the question of bush nursing should be for discussion at the annual Conference.

An attempt was being made to make the Cottage Hospital at Koo-wee-rup established by the Bush Nursing Association a public hospital, so that it might claim a share of the Government grant.

The Council of the Branch expressed the opinion that its registration as a private hospital should be maintained and that its registration as a public hospital should be opposed.

Coroner's Court.

The Attorney-General was requested to consider the fee for *post mortem* examinations and for mileage.

With regard to delays in the Coroner's Court, a deputation waited on Mr. Berriman, the City Coroner, who expressed himself as anxious to assist in avoiding delay in calling medical witnesses. If these would ring up his orderly, they would be advised as to the exact time at which their services would be required.

Medical Officers of the Education Department.

One subdivision reported that the medical officers had instructed the children to attend a public hospital for any necessary treatment, instead of instructing the parents of children requiring treatment to see their own private doctors. The Department promised to see that the recently appointed medical officers were instructed as to their correct attitude in this regard and that only where parents were too poor to pay for medical treatment were they to be advised to take the children to a hospital.

The attention of the Education Department was drawn to an advertisement calling for applications for oculists, part of whose duties was to prescribe in country districts.

It was ascertained that in New South Wales ophthalmic treatment of school children was permitted only in places where the services of an ophthalmic surgeon were not available. A subcommittee of the Council waited on the Acting Director of Education and the Public Service Commissioner was informed that the Advisory Board was of the same opinion as this Council. The appointment was held over until the present medical officers should be taken over under the proposed new Ministry of Health.

In answer to a question arising out of an appointment to the medical service of the Education Department, the Council gave its opinion that there should be equal pay for equivalent appointments of legally qualified medical men and women.

Health Officer Federal Territory.

The position of Health Officer for Canberra at a salary of £800 *per annum*, no private practice being allowed, was advertised. The Council held that the salary was inadequate for the specified duties and that the duties of a health officer should be purely those of an officer of health and that a separate appointment should be made to carry out the prescribed duties of a medical practitioner. The Secretary of the Federal Capital Commission replied that the expenditure of £1,000 *per annum* for a health officer and hospital superintendent alone was hardly justified, much less provision for two doctors.

Wards of State.

The Council resolved that it was opposed to the appointment of honorary medical officers to State medical services.

Medical Agency

The financial year closes in January and it is anticipated that the profits for the year will be somewhat less than in the previous year.

The Council approved of the principle of the establishment of a medical insurance company to undertake all forms of insurance other than that of life assurance.

The Federal Committee considered the formation of a company for the Commonwealth, but there were legal difficulties in the way in two or more States, so it was resolved that the Branches should act independently. The Council, therefore, instructed the Agency Committee to proceed with a scheme. The Committee approached the Automobile Insurance Company of Australia, which offered to cooperate on very liberal terms and to underwrite all the business of the company. The company will be one limited by guarantee. Provisional directors have been appointed and articles and a memorandum of association have been prepared.

It is hoped to have this company in running order shortly, when members will be asked to insure for a less premium than paid elsewhere, by taking out policies for all sickness and accidents, motor car, house and furniture, burglary and plate-glass insurance.

The profits of the company will be utilized for the benefit of the Branch.

Medical Defence.

The Council passed a resolution that it was desirable that all members of the Medical Defence Association should be members of the Medical Society of Victoria and *vice versa* and that steps be taken to see how this can be brought about. A conference is being arranged with the Medical Defence Association to discuss this matter.

Pharmaceutical Chemists' Act, 1920.

The Pharmacy Board proposes to secure an amendment of this Act so as to prevent the prescribing and dispensing of medicines by herbalists. At its request a conference was held with a subcommittee of the Council which offered its support in securing the passing of the legislation necessary. A large fund of information was gathered from members as to the harmful results from the practice of herbalists; this information was forwarded to the Minister in charge of the Bill.

Federal Committee.

Sir George Syme and Dr. R. H. Fetherston were cordially thanked for their long services as representatives of the

Branch on the Federal Committee. The transactions of this Committee, which met in February and July, have been fully reported in THE MEDICAL JOURNAL OF AUSTRALIA.

Australasian Medical Congress (British Medical Association).

The second Congress under the auspices of the British Medical Association will be held in Dunedin in 1927. Dr. F. L. Davies was appointed Honorary Secretary for this State and Dr. A. L. Kenny was nominated as Vice-President. Nominations of Presidents and Vice-Presidents of Sections were also made.

New British Medical Association Buildings, London.

Dr. H. I. Holmes, of Warrnambool, accepted the invitation of the Council to represent this Branch at the opening of the new buildings in Tavistock Square, London.

The Federal Committee was represented by Dr. W. N. Robertson, Queensland, who, on behalf of the Branches in Australia, presented to the Home Association a chair made of Australian timber at a cost of £100.

Annual Representative Meeting.

Dr. J. P. Major was appointed the Representative of the Branch at the Annual Representative Meeting, Bath, England, and Drs. H. I. Holmes, C. L. Park and J. H. Pestell were appointed delegates.

Royal Commission Public Health.

A Commonwealth Royal Commission was appointed by the Federal Parliament to inquire into various matters connected with the health of the community. Dr. R. H. Todd was nominated by the Federal Committee as one of its members and Sir George Syme was appointed its Chairman. A number of the members of the profession were appointed to give evidence under the various headings.

The Commission has concluded taking evidence and is now preparing its report.

National Insurance.

The committee of this Council concluded its labours early in the year. Its report was adopted and forwarded to the Federal Committee.

Dr. Newman Morris received a hearty vote of thanks for the immense amount of work he had put into the question of national insurance.

The Royal Commission has concluded its sittings and has sent in a progress report which is now under the consideration of the subcommittee of this Council.

Visit of the American Fleet.

The medical officers of the American Fleet were entertained by the Victorian Branch of the British Medical Association and the Melbourne Medical Association by a motor trip to Healesville on Sunday, August 2. A syllabus of work at the various public hospitals was prepared and an invitation extended to the medical officers to attend these institutions at any time during their stay.

Sir George Syme Foundation Fund.

The portrait which was hanging in the National Gallery has been transferred to the New Hall and a replica has been handed to Lady Syme. The balance of £220, after the discharge of all liabilities, has been invested in the War Loan. It is proposed that the interest of the fund shall be used for the delivery of a triennial lecture.

Late Professor Hunter.

When it was learnt in December last that Professor John Irvine Hunter had died in London, a letter of condolence was sent to his widow and to the Council of the New South Wales Branch, expressing the admiration of the members of this Branch for his brilliant work and regret that a life so full of promise had been cut off so early. In New South Wales a fund is being raised to establish a memorial in his honour and the Council invited subscriptions from members to this fund.

Finance.

The financial year does not end till December 31. The balance sheets will be presented at the monthly meeting in February.

The Council voted a sum of twenty-five guineas to the Medical Research Fund raised by the Melbourne University.

Sir Ernest Rutherford.

In conjunction with the University Extension Board, a lecture was arranged for Friday, September 11, at the Assembly Hall, when Sir Ernest Rutherford spoke on "Radium and Medicine."

Orthopædic Section.

This Section was formed during the year. Dr. Mervyn Stewart was chosen as Honorary Secretary. It passed a Resolution afterwards approved by the Council:

That in the opinion of a conference of the Committee of the Section with the medical officers of the metropolis, it was essential that a home for the care and cure of crippled children should be established.

Scientific Committee.

This Committee has arranged the syllabus of scientific meetings throughout the year.

The Council has resolved that the monthly meetings of the Branch shall be held in the Hall and shall be for the reading of papers or delivery of lectures *et cetera* and that the clinical meetings shall be held on other evenings to be arranged.

The Committee was empowered to read any offered papers before recommending their acceptance for delivery before the Branch. At the opening of the medical Library of the University, the trend of the speeches was that there should be a closer attachment between the medical profession, the anatomy school and the biochemical laboratory. Following this suggestion, a meeting of the British Medical Association was held in the Department of Anatomy, at the invitation of Professor Berry and a series of lectures and demonstrations at the University was arranged for November 16.

The Council thanked the Trustees of the Walter and Eliza Hall Institute and the Committee of the Melbourne Hospital for the use of its lecture-room while reconstruction of the Medical Society Hall was in progress and, as a compliment to that Institute, asked its Director to read a paper at the first Scientific Meeting in the new Hall. It also thanked the Committees of the various metropolitan hospitals for the opportunity given for holding its clinical meetings in their institutions.

Monthly Meetings.

Five monthly meetings, seven clinical meetings and two special meetings were held during the year. The following papers were read:

February.—Dr. J. F. MacKeddie: (a) "Impressions of Medicine Abroad." (b) "The Use of Intrathecal Lipiodol with Skiagraphy in Diagnosing Cord Lesions." (c) Cinematograph Demonstration of Neurological Manifestations.

March.—Clinical Evening at Austin Hospital.

April.—Dr. H. B. Devine: "Recent Advances in Gastric Surgery." Dr. C. H. Kellaway, Director of the Walter and Eliza Hall Institute: "Endocrinology and Modern Medicine."

May.—Clinical Evening at Melbourne Hospital.

June.—Professor P. MacCallum, "Immunity."

July.—Clinical Evening at Women's Hospital.

August.—Dr. A. H. Thwaites: "Recent Advances in Cancer Work." Clinical Evening at Alfred Hospital.

September.—Clinical Evening at St. Vincent's Hospital.

October.—Dr. Fay Maclure: "Treatment of Chronic Ulcer of the Leg." Clinical Evening at Eye and Ear Hospital.

Special Meetings.

September.—Sir James Barrett showed a film on "Treatment of Gonorrhoea in the Male."

November.—Demonstrations and lectures in the Anatomy Department of the University of Melbourne.

By order of the Council,
C. STANTON CROUCH, Secretary.

Librarian's Report.

This year we have to record with satisfaction the accommodation of our books and journals in the library of the new building.

The work of moving, rearrangement and cataloguing the books and periodicals has been completed and it is gratifying to note how members have availed themselves of the new and increased facilities of the Library since it has been moved to its new site.

We have to note also the recent appointment of a permanent library clerk. We expect thereby to improve the management and efficiency of the library and to extend its usefulness to members using it in connection with research work.

In association with the University an attempt is being made to coordinate so far as possible the activities of the different medical libraries in Melbourne.

In this way we hope that shortly we shall be able to make available for medical scientific workers in Melbourne, a very wide range of the world's medical periodicals, besides recent textbooks and monographs.

A catalogue is being made and will be issued indicating the library where each periodical is available.

One hundred and forty-eight books have been added to the library since the last report and one hundred and one periodicals have been received during the year.

We wish to record our thanks to Dr. A. V. M. Anderson, Dr. Kent Hughes and Dr. Newman Morris for books presented during the year.

W. G. D. UPJOHN,
R. H. FETHERSTON,
Honorary Librarians.

Nomination of Trustees.

Dr. H. DOUGLAS STEPHENS intimated that it was necessary that two names should be forwarded to the Lands Department as nomination of trustees of the land on which the Medical Society Hall is built. Two trustees, to be appointed by the Governor-in-Council, were required to replace Sir Charles Ryan (resigned) and Sir Harry Allen. Dr. C. H. Mollison and Sir George Syme would continue in office.

The Council had considered the matter and proposed the names of Dr. R. H. Fetherston and Dr. J. Newman Morris.

Dr. W. Kent Hughes moved that Dr. R. H. Fetherston and Dr. J. Newman Morris be nominated as trustees of the land on which the Medical Society Hall is built.

The motion was seconded by Dr. A. V. M. Anderson and carried unanimously.

Death of Queen Alexandra.

Dr. H. Douglas Stephens moved from the Chair:

That the Victorian Branch of the British Medical Association place on record its profound regret on the occasion of the death of Queen Alexandra and express its sympathy with the Royal family.

The motion was seconded by Dr. R. J. Bull and carried in silence, all present standing.

Medical Appointments.

Dr. Leslie Gemmel Tassie, D.S.O. (B.M.A.) has been appointed Medical Superintendent of the Port Pirie Hospital, South Australia.

Dr. V. B. Ralsis has been appointed Acting Local Officer of Health for Queenstown, Tasmania.

Medical Appointments Vacant, etc.

For announcements of medical appointments vacant, assistants, locum tenentes sought, etc., see "Advertiser," page xx.

ADELAIDE CHILDREN'S HOSPITAL: Resident Medical Officer.

Medical Appointments: Important Notice.

MEDICAL practitioners are requested not to apply for any appointment referred to in the following table, without having first communicated with the Honorary Secretary of the Branch named in the first column, or with the Medical Secretary of the British Medical Association, 429, Strand, London, W.C.

BRANCH.	APPOINTMENTS.
	Australian Natives' Association. Ashfield and District Friendly Societies' Dispensary. Balmalm United Friendly Societies' Dispensary.
NEW SOUTH WALES: Honorary Secretary, 30 - 34, Elizabeth Street, Sydney.	Friendly Society Lodges at Casino. Leichhardt and Petersham Dispensary. Manchester United Oddfellows' Medical Institute, Elizabeth Street, Sydney. Marrickville United Friendly Societies' Dispensary. North Sydney United Friendly Societies. People's Prudential Benefit Society. Phoenix Mutual Provident Society.
VICTORIAN: Honorary Secretary, Medical Society Hall, East Melbourne.	All Institutes or Medical Dispensaries. Australian Prudential Association Proprietary, Limited. Mutual National Provident Club. National Provident Association.
QUEENSLAND: Hon- orary Secretary B.M.A. Building, Adelaide Street, Brisbane.	Brisbane United Friendly Society Institute. Stannary Hills Hospital.
SOUTH AUSTRALIAN: Honorary Secretary, 12, North Terrace, Adelaide.	Contract Practice Appointments at Ceduna, Wudinna (Central Eyre's Peninsula), Murat Bay and other West Coast of South Australia Districts.
WESTERN AUSTRALIAN: Honorary Secretary, Saint George's Terrace, Perth.	All Contract Practice Appointments in Western Australia.
NEW ZEALAND (WELLINGTON DIVI- SION): Honorary Secretary, Wellin- gton.	Friendly Society Lodges, Wellington, New Zealand.

Diary for the Month.

- DEC. 31.—South Australian Branch, B.M.A.: Branch.
JAN. 5.—New South Wales Branch, B.M.A.: Council (Quarterly).
JAN. 7.—South Australian Branch, B.M.A.: Council.
JAN. 12.—New South Wales Branch, B.M.A.: Ethics Committee.
JAN. 14.—Victorian Branch, B.M.A.: Council.
JAN. 18.—New South Wales Branch, B.M.A.: Organization and
Science Committee.
JAN. 19.—New South Wales Branch, B.M.A.: Executive and
Finance Committee.
JAN. 26.—New South Wales Branch, B.M.A.: Medical Politics
Committee.
JAN. 27.—Victorian Branch, B.M.A.: Council.
FEB. 3.—Federal Committee of the British Medical Association
in Australia: Meeting at Melbourne.
FEB. 3.—Victorian Branch, B.M.A.: Presentation of Balance
Sheet, 1925.
FEB. 4.—South Australian Branch, B.M.A.: Council.
FEB. 9.—New South Wales Branch, B.M.A.: Ethics Committee.
FEB. 11.—Victorian Branch, B.M.A.: Council.
FEB. 16.—New South Wales Branch, B.M.A.: Executive and
Finance Committee.

Editorial Notices.

MANUSCRIPTS forwarded to the office of this journal cannot under any circumstances be returned. Original articles forwarded for publication are understood to be offered to THE MEDICAL JOURNAL OF AUSTRALIA alone, unless the contrary be stated.

All communications should be addressed to "The Editor," THE MEDICAL JOURNAL OF AUSTRALIA, The Printing House, Seamer Street, Glebe, Sydney. (Telephones: MW 2651-2.)

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